

LOINC WORKSHOP 2013

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Health Informatics Analyst 1
21 June 2013

Logical Observation Identifiers Names and Codes (LOINC®)

A universal code system for identifying laboratory and clinical observations.

From serum levels of hepatitis B surface antigen to diastolic blood pressure, LOINC has standardized terms for all kinds of observations and measurements that **enable exchange and aggregation of electronic health data from many independent systems.**

More than 20,000 people in 150 countries use LOINC to help make bridges across their islands of health data.

It's free, but invaluable. Both [LOINC](#) and the [RELMA](#) mapping program that helps link your local codes to LOINC terms are **distributed at no cost** by the [Regenstrief Institute](#). LOINC is your key to interoperable data exchange.



Get LOINCing ▶

Common LOINCs

Get started with the most frequently used LOINC result codes.

[Top 2000 Results plus Mapper's Guide](#)



Explore LOINC

Search the latest version of LOINC right from your browser:

search.loinc.org

Tap the Wisdom of the Crowd

RELMA now lets you see the mappings from other LOINC users.

Join our study to unlock these new crowd-based features.



Share the wealth. Send your mappings back to our community repository.



We're hiring! [Regenstrief Job Opening - LOINC Content Developer](#)



Public Laboratory LOINC Workshop & Committee Meeting 06/06/13-06/07/13

Public Clinical LOINC Tutorial & Committee Meeting 08/29/13 - 08/30/13



New to LOINC? [Watch the LOINC Introduction Webinar](#)

LOINC: An Introduction to the Universal Catalog of Laboratory and Clinical Observations

Daniel J. Vreeman, PT, DPT, MSc

Runtime: 58 mins

Documentation

Background about LOINC

LOINC Users' Guide

Recommended Readings

Presentations/Tutorials

[FAQ](#)

community

- ational
- Forum
- ngs
- g Lists
- ory of Adopters
- oration with other SDOs
- unity Mapping Repository

Content

- [Top Result and Order Code Lists](#)
- [Newborn Screening](#)
- [Document Ontology](#)
- [HIPAA Attachments](#)
- [What's Coming in the Next Release](#)
- [Request New LOINC Terms](#)



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Lab LOINC Tutorial - Current

Using RELMA

Or...In Search of the Missing LOINC

Laboratory LOINC Meeting – June 2013

James T. Case MS, DVM, PhD, FHL7, FACMI
Health Program Specialist, SNOMED CT
National Library of Medicine



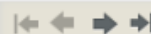
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by [Daniel Vreeman](#) — last modified 2013-06-10 11:58

Using RELMA

Or...In Search of the Missing LOINC

Laboratory LOINC Meeting – June 2013

James T. Case MS, DVM, PhD

Health Program Specialist, SNOMED CT

National Library of Medicine



What will we cover today?

- Overview of LOINC
- Reviewing new RELMA features
- Installing RELMA
- Setting personal preferences
- Loading a Local Observation File (LMOF)
- Searching for a LOINC Term
- Preparing LMOF for Mapping
- Review of Map Screen Functions
- Setting Search Limits
- Mapping Local Terms to LOINC
- Viewing LOINC Term Details
- Proposing/Submitting New LOINC Terms
- Exporting/Printing Mapped Terms
- Mapping your own LMOF data

Why are we doing this?

Goals of Health Information Standards

- **Interoperability** – the ability to exchange information between organizations
- **Comparability** – the ability to ascertain the equivalence of data from different sources
- **Data Quality** – the measurement of accessibility, completeness, accuracy and precision (and more)

Levels of Interoperability

- **Basic** – allows data to be exchanged between computer systems
 - Word processing documents, text messages
- **Functional** – describes the standard syntax (format) of the data
 - Document templates, forms, data structures
 - Message standards
- **Semantic** – requires use of standardized content (vocabularies) within the data structure

Comparability

- Meaning of the data is consistent when shared among different parties
 - Erysipelas – Human skin disease; *Streptococcus* Grp A
 - Erysipelas – Animal Septicemia/dermatitis; *Erysipelothrix rhusiopathiae*
- Common terminology required
 - Should work in the background
- Words are not enough
 - Codes – uniquely identify terms
 - Vocabulary – specialized, precise terms that remove ambiguity
 - Ontology – describes nature of entities and their relations
 - Classification – groups related terms

Test comparisons

What you see in the order list



Lab A

Test Name: Lyme Disease Serology

Measures: *B. burgdorferi* Ab IgG

Method: ELISA

Scale: quantitative

e.g.: Titer 1:40

LOINC Code = 5062-5

Lab B

Test Name: Lyme Disease Antibody

Measures: *B. burgdorferi* Ab IgM

Method: Immune blot

Scale: qualitative

e.g.: Positive

LOINC Code = 6321-4

Why LOINC?

“Within one laboratory, local jargon terms may be used which are usually well understood between colleagues, but would not be sufficiently widely known for communication with the outside world.”

U. Forsum et al., Pure Appl. Chem 72:555-745, 2000 *Properties and Units in the Clinical Laboratory Sciences Part VII. Properties and Units in Clinical Microbiology*

LOINC[®] 101

Emphasis on Laboratory
LOINC

Anatomy of a LOINC Term

5193-8:Hepatitis B virus surface Ab:ACnc:Pt:Ser:Qn:EIA

5193-8	LOINC Code
Hepatitis B virus surface Ab	Component
ACnc	Property Measured
Pt	Timing
Ser	System
Qn	Scale
EIA	Method

There are six major LOINC axes

NOT part of a LOINC Name

- Reason for the test (why it was ordered or the disease it diagnoses)
- Testing instrument
- Specific details about the specimen
- Priority (e.g. STAT)
- Where testing was done
- Who did the test
- Test interpretation
- Pricing or cost
- Anything not part of naming the test
- Things from other fields in an HL7 message

Component/Analyte

The substance or entity that is measured, evaluated, or observed

- Sodium
- Glucose
- Brucella sp. organism
- Influenza A Virus antigen
- Cytomegalovirus Virus antibody
- Lipids.Total

Component Structure

Analyte Name^Challenge^Adjustments

Formal analyte name

Specify “subanalytes”
May have subclasses

Calcium

Coronavirus Ag

Calcium.ionized

Challenge

Two parts separated by
“post”

1H post 100 g Glucose PO

<time delay>post<challenge type>

Adjustments

Adjusted to pH 7.4

Property

the most difficult LOINC axis

The characteristic or attribute of the analyte that is measured, evaluated, or observed

Major Categories

- **Mass:** Observations reported with mass (milligrams, grams, etc.) in the numerator of their units of measure
- **Substance:** Observations reported with moles or milliequivalents in the numerator of their units of measure
- **Catalytic activity:** Observations that report enzymatic activity
- **Arbitrary:** Results that report arbitrary units in the numerator of their units of measure
- **Number:** Counts

5193-8:Hepatitis B virus surface Ab:ACnc:Pt:Ser:Qn:EIA

Property

the most difficult LOINC axis

Combine Major Categories with Subtypes for Full Property

- MCnc – mass concentration (mass/unit vol)
- MCnt – mass content (mass/unit mass)
- NCnc – number concentration (number/unit vol)
- TmStp – time
- CCnc – catalytic concentration (activity)
- Prid – presence or identity
- Imp – impression/interpretation
- Find – subjective or objective observation
- Type – “Kind-of”

5193-8:Hepatitis B virus surface Ab:ACnc:Pt:Ser:Qn:EIA

Common Issues with LOINC Properties

Fraction (proportion) vs. Ratio

$a/a+b$ vs. a/b

- Fraction = Part/whole
 - Number fraction (NFr): % Eosinophils
 - Substance fraction (SFr): % HGB which is A2
- Ratio = Measures multiple analytes from the **same** system (specimen)
 - Mass concentration ratio - MCrto
 - e.g., BUN/Creat in urine specimen
 - Substance ratio-SCrto
 - Urea/Creatinine expressed as mmol/L (SI units)
- Relative Ratio = Measures from **different** systems
 - RelRto
 - RITm – time from actual and normal control

Timing*

The interval of time over which the observation or measurement was made

- Pt - at a point in time
- 12H - a twelve hour collection
- 24H - a twenty four hour collection

*non-Pt timings are usually associated with Rate Property

System

The system (context) or specimen type upon which the observation was made.

Ser

serum

Ser/Plas

serum or plasma

Bld

whole blood

Ur

urine

Flu

body fluid

Tiss

tissue

XXX

specified elsewhere



photo via [AlishaV](#)

5193-8:Hepatitis B virus surface Ab:ACnc:Pt:Ser:Qn:EIA

System Structure

System ^ Super System


- **Super System**
- Patient is the default
- Used to indicate
 - blood product unit
 - bone marrow donor
 - fetus



photo via [Xurple](#)

818-5:A Ag:ACnc:Pt:**RBC**^**BPU**:Ord:
54417-1:ABO+Rh group:Type:Pt:**Bld**^**fetus**:Nom:

Scale

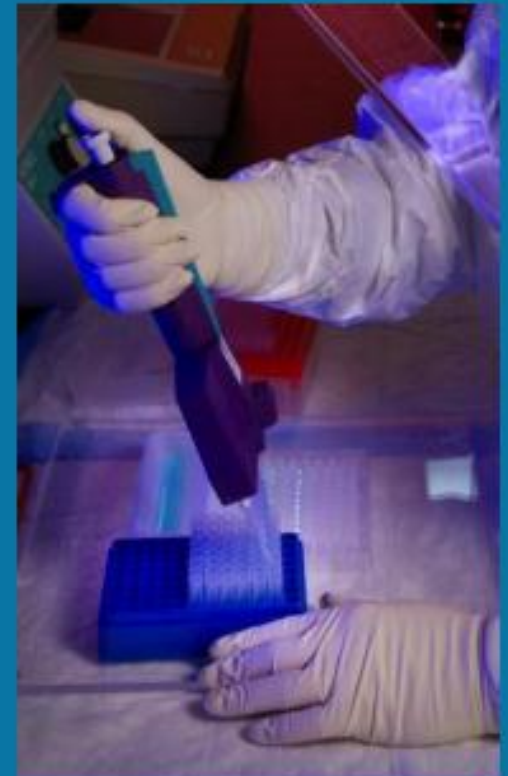
Qn	<i>Quantitative</i> continuous numeric can have operators (<,>)	 <p>photo via pwwikiibeach</p>
Ord	<i>Ordinal</i> Ranked set (1+, 2+, 3+)	
Nom	<i>Nominal</i> unranked collection Taxonomy (e.g. bacteria)	
Nar	<i>Narrative</i>	

Scale (Special)


- OrdQn – Ordinal or Quantitative
 - Primarily used for antimicrobial observations e.g. MIC reported as resistant, intermediate, susceptible or as the mm diameter of the inhibition zone
 - Use is discouraged in other contexts
- Multi – structured text “globs”
 - e.g. chromatography output
 - Use is discouraged
- Doc – Clinical documents
- Set – Clinical attachments (headers)

Method

- **Only** needed if interpretation affected
 - Different normal ranges
 - Test sensitivity/specificity
- Listed at the generic level
 - Agglutination
 - Enzyme Immunoassay
 - Probe with target amplification



Hierarchies

- LOINC ‘class’
- Each LOINC axis
- Multi-axial
 - Component | System
 - Separate download 

Mapping Terms to LOINC

Things to Remember

- The thing ordered is not always the thing measured:
 - Blood Culture – live organism(s) identified
 - VDRL – *Treponema pallidum* Ab
 - Urinalysis – lots of different things
- The question (what am I measuring? e.g. Glucose) is not the answer (e.g. 90 mg/dl)
 - You are mapping the question, not the answer!
- You must know the specifics of the component being tested for (what is this test actually measuring?)

What is in LOINC?

Content

- Term structures
- Submitted units, Example UCUM units
 - aiming toward preferred units sorting
- Synonyms
- Answer lists (increasing number)
- Text descriptions – links to info sources about individual tests
 - Panel structures
 - Foreign language translations

RELMA®

Regenstrief LOINC Mapping Assistant



Purpose of Tutorial

- “Eliminate” need to read the User’s Manual
- Become familiar with RELMA features
- Provide some insight into mapping tips/pitfalls
- Help begin the mapping process for your institution

RELMA Functions

- LOINC files and indexes
- Manual and automated mapping functions
- Same free use as LOINC (see license)
- RELMA tools transform local words in local file
 - User creates file of local term/name and codes
- Assigns LOINC term to local test/battery code
- “Common tests” subset to speed mapping
- Context sensitive hierarchies for local use.
- Flexible “Google-like” search functions

New in Version



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all of loinc.org

[log in](#) [new user?](#)

you are here: [home](#) → [downloads](#)

Get LOINC

LOINC and RELMA Complete Package

↓ DOWNLOAD

[LOINC and RELMA Complete Download File \(All Formats Included\)](#) (273.1 MB)

File Version: LOINC 2.42 and RELMA 6.0 | Release Date: 2012-12-28 | File type: application/zip

This file contains the RELMA® program installer (which also includes the LOINC® and RELMA® Users' Guides), and the LOINC® database in both MS Access™ and tab-delimited formats.

To download this file you need to log in with your user name and password. If you do not have an account here, head over to the [registration form](#).

complete package
loinc

LOINC Table

LOINC 2.42
Released: 2012-12-28

The LOINC table with fields for LOINC codes, each of the six parts of the formal name of the LOINC, synonyms, comments, and other information. Distributed as a tab-delimited text file, a CSV format text file, an Access database, and a release to release [Change File](#) and [Change Report](#). Documentation includes [LOINC Release Notes](#) and the comprehensive [LOINC User's Guide](#).

[Download icon](#)

LOINC icon

Accessory Files

LOINC 2.42
Released: 2012-12-28

Additional files available in the LOINC distribution.

- [LOINC Panels and Forms File](#)
- [LOINC Top 2000 Results](#)
- [LOINC Top 300 Orders](#)
- [Common UCUM units](#)
- [LOINC Multiaxial Hierarchy File](#)
- [LOINC Context-specific Hierarchy Template File](#)

[Download icon](#)



RELMA

RELMA 6.0
Released: 2012-12-28

Regenstrief LOINC Mapping Assistant (RELMA®) is a Windows program for searching the LOINC database and helping you map local codes to LOINC codes. Documentation includes [RELMA Release Notes](#) and a comprehensive [RELMA User's Manual](#).

[Download icon](#)



Current Versions

LOINC 2.42
Released: 2012-12-28

RELMA 6.0
Released: 2012-12-28

Recent Forum Posts

[System Implementation | Re: LOINC database and multi-axial hierarchy out of sync?](#)

[LOINC Forum Information | T3 UPTAKE](#)

[More posts...](#)

[Join the conversation](#)

New in Version (Rel. 6.0)

- Default - latest copy of LOINC details retrieved from the loinc.org website.
 - LOINC Community Mapping project.
 - shared repository of local tests and variables mapped to LOINC codes
 - allow you to contribute your mappings back to this community repository so that others can benefit from your seeing your work

New in Version (Rel. 6.0)

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

File Tools HIPAA Lab Auto Manner View Help log out | Welcome chpcz01

Search Mapping

Community Mapping Display for LOINC 15074-8

15074-8 Glucose [Moles/volume] in Blood

NAME

Fully-Specified Name:	Component	Property	Time Aspect	System	Scale	Method
	Glucose	SCnc	Pt	Bld	Qn	

Mappings from the LOINC Community

Battery Code	Battery Name	Local Code	Local Test Name	Units	Language	Institution
		ABLGL	Glucose - Whole Blood	mmol/L	English (US)	eHealth Saskatchewan
		RGW	Glucose, Random (Whole Blood)	mmol/L	English (US)	Hong Kong Hospital Authority

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Generated from LOINC version 2.42.

Grid Tree

Row	JCU...	E
1		
2	/dL	m
3	/dL	m
4	/dL	m
5	/dL	m
6	ol/L	m
7	ol/L	u
8	/dL	m
9	ol/L	m
10	/dL	m
11	/dL	m
12	ol/L	m
13	ol/L	m
14	ol/L	m
15	/dL	m
16	ol/L	m
17	/dL	m
18	ol/L	m
19	ol/...	m
20	/dL	m
21	ol/L	mmol/L

550 CHEM 46 glucose [Moles/volume] in Cerebral spinal fluid 4 Glucose CSF-sCnc

Units Specimen Methodless No Common Limits Battery Max Words: 87 records found: 0.01s

What's available to download?

- RELMA - mapping and browsing tool
 - HL7 message converter- Makes a database suitable for mapping
 - HL7 lint (finds bad messages)
- LOINC database and spreadsheets
- LOINC User guide; RELMA User Guide
- Tools to assist language translations by part
- Tools for building databases to map from HL7 messages
- New guidance documents for mappers

Installing RELMA®



Installation Steps

- Make sure you have enough free disk space!
 - 2Gb is recommended
- From CD - Start – Run – *<drive>*:\RELMA\Setup
- Specify installation directory
 - Life will be easier if you accept the default
- Two database files installed
 - RELMA.MDB – LOINC Terms Database
 - LMOF3.MDB – Local Master Observation File
- Two sample files included
- Run from Start – (All) Programs – Regenstrief – RELMA

File Locations

- Database and Ancillary Files
 - Windows XP = C:\Documents and Settings\All Users\Documents\RELMA\
 - Windows Vista = C:\Users\Public\Documents\RELMA\
 - Windows 7 = C:\Users\Public\Documents\RELMA\
- Sample files
 - Windows XP = C:\Documents and Settings\All Users\Documents\RELMA\Samples\
 - Windows Vista = C:\Users\Public\Documents\RELMA\Samples\
 - Windows 7 = C:\Users\Public\Documents\RELMA\Samples\

Running RELMA®

Version 6.0



Copyright Screen



The Regenstrief LOINC® Mapping Assistant (RELMA®)
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Copyright Notice and License

The LOINC® codes, LOINC® table (regardless of format), LOINC® Release Notes, LOINC® Changes File, and LOINC® Users' Guide are copyright © 1995-2013, Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee. All rights reserved.

The RELMA® program, RELMA® database and associated search index files (subject to the copyright above with respect to the LOINC® codes and LOINC® table included therein), RELMA® Community Mapping Feature Database, RELMA® Release Notes, and RELMA® Users' Manual are copyright © 1995-2013, Regenstrief Institute, Inc. All rights reserved.

Continue

New Feature! Join the LOINC Community

 Log in

**The Regenstrief LOINC® Mapping Assistant (RELMA®)**
Copyright Regenstrief Institute, Inc. All rights reserved.

Tap into the wisdom of the LOINC crowd! It's simple.

1. First, [sign up for our study](#). (You can't use these features if you don't join).
2. Next, **login below** with your same loinc.org account.
3. Then, RELMA shows you how many others have mapped to each LOINC code and the local names for those tests.

Username

Password

☐ Remember Me

☒ Do not show on start up

[join loinc.org](#)

Log in

Cancel

Main Menu/Welcome Screen



Set Preferred Language

The screenshot shows the RELMA application window. The 'File' menu is open, displaying a list of options. A blue callout box with a black border points to the 'Set Preferred Language...' option in the menu. The callout contains the text 'Click File, Set Preferred Language'. To the right of the menu, there are four red buttons with white text and icons: 'Propose New LOINC Term' (with a box and plus icon), 'Panels, Forms, & Surveys' (with a notepad and checkmark icon), 'Import Local Terms' (with a folder and down arrow icon), and 'Export Local Terms' (with a folder and up arrow icon). At the bottom of the window, there are two buttons: 'User Preferences' (with a person icon) and 'Exit Program' (with a power icon). The footer of the window contains the copyright notice 'Copyright © 1995-2011 Regenstrief Institute. All rights reserved.', the text 'OINC Workshop OBR 12', 'Welcome to RELMA, NIH\casejt', and 'Version 5.4'.

Click File, Set Preferred Language

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC Database
- Map local terms to LOINC
- Select Local Term File to Process...
- View/Add/Edit Local Terms...
- Report Local Terms and Their LOINC Mappings...
- Export Local Terms and Their LOINC Mappings to Delimited File...
- View Local Term File Summary
- Review Panels, Forms & Surveys...
- Import Local Terms from Delimited File...
- Import Local Terms from HL7 File...
- Propose a new LOINC...
- Review and Submit Proposed LOINC...
- Set User Preferences...
- Set Preferred Language...
- Exit

Propose New LOINC Term

Panels, Forms, & Surveys

Import Local Terms

Export Local Terms

User Preferences **Exit Program**

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OINC Workshop OBR 12 Welcome to RELMA, NIH\casejt Version 5.4

Select Linguistic Variant(s)

Preferred Linguistic Variant

RELMA supports multiple linguistic variants which can be displayed in the search results screen. You may select below your preferred linguistic variant. You may change this setting later using this dialog or the user preferences dialog.

You may view all of the linguistic variants for a particular LOINC anytime using the LOINC browser.

Additional information about linguistic variants, including full list of variants, is available at:

<http://loinc.org/international>

NOTE - selecting a linguistic variant for searching may require the creation of one or more additional indexes. This process can take several minutes to complete, so please be patient. These indexes will need to be refreshed with each update to the LOINC data. Additionally, these index files will not be removed if RELMA is un-installed. You may safely delete these files at any time.

Selecting a translation may require indexes to be built

My preferred linguistic variant is...

Display	Search	Variant	Producer
<input type="checkbox"/>	<input type="checkbox"/>	Chinese (CHINA)	Bethune International Peace Hospital
<input type="checkbox"/>	<input type="checkbox"/>	Draft Portuguese (BRAZIL)	Jussara Röttsch, MD, Brazilian Federal Agency for Health Plans and Insuranc...
<input type="checkbox"/>	<input type="checkbox"/>	Estonian (ESTONIA)	Estonian E-Health Foundation
<input type="checkbox"/>	<input type="checkbox"/>	French (CANADA)	Canada Health Infoway Inc.
<input type="checkbox"/>	<input type="checkbox"/>	French (FRANCE)	Société Française d'Informatique de Laboratoires
<input type="checkbox"/>	<input type="checkbox"/>	French (SWITZERLAND)	CUMUL, Switzerland
<input type="checkbox"/>	<input type="checkbox"/>	German (SWITZERLAND)	CUMUL, Switzerland
<input type="checkbox"/>	<input type="checkbox"/>	Greek (GREECE)	Efstratia Kontaxi, MD, MSc, and Evripidis Stefanidis, MD, with technical supp...
<input type="checkbox"/>	<input type="checkbox"/>	Italian (ITALY)	Consiglio Nazionale delle Ricerche
<input type="checkbox"/>	<input type="checkbox"/>	Italian (SWITZERLAND)	CUMUL, Switzerland
<input type="checkbox"/>	<input type="checkbox"/>	Korean (KOREA, REPUBLIC OF)	Korean Ministry for Health, Welfare, and Family Affairs
<input type="checkbox"/>	<input type="checkbox"/>	Spanish (ARGENTINA)	Conceptum Medical Terminology Center
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Spanish (SPAIN)	the Clinical Laboratory Committee of SERVICIO EXTREMEÑO DE SALUD, with...
<input type="checkbox"/>	<input type="checkbox"/>	Spanish (SWITZERLAND)	CUMUL, Switzerland

OK

Cancel

LOINC Terms with Spanish Linguistic Variant

Map Local Terms - LOINC Workshop OBR 12/6

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

View: All

#: 7 of 191

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Hide Words Propose Term

Auto Mapper Search: No

Use Local Words # Hits Use Local Words

<input checked="" type="checkbox"/> 1	allergy	3942	<input type="checkbox"/> 5	
<input type="checkbox"/> 2			<input type="checkbox"/> 6	
<input type="checkbox"/> 3			<input type="checkbox"/> 7	
<input type="checkbox"/> 4			<input type="checkbox"/> 8	

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	15236-3	Mezcla de alergenicos ocupacional 2 (Acarus...	Concentración...	Punto...	Suero	Ord	Multidisco
2	48265-3	Mezcla B de alergenicos del polvo (Acarus...	Concentración...	Punto...	Células sanguíneas blancas	Qn	
3	15270-2	Mezcla 8 de Alergenicos de árboles (Acer...	Concentración...	Punto...	Suero	Ord	Multidisco
4	50653-5	Mezcla 8 de Alergenicos de árboles (Acer...	Concentración...	Punto...	Suero	Qn	Multidisco
5	15267-8	Mezcla 6 de Alergenicos de árboles (Acer...	Concentración...	Punto...	Suero	Ord	Multidisco
6	15262-9	Mezcla de alergenicos de árboles 10 (Acer...	Concentración...	Punto...	Suero	Ord	Multidisco
7	30184-6	Mezcla de alergenicos de árboles 10 (Acer...	Concentración...	Punto...	Suero	Qn	Multidisco
8	24479-8	Mezcla de alergenicos de árboles 10 (Acer...	Concentración...	Punto...	Suero	Ord	Multidisco

Truncated Text Print Preview

View Details Print Grid Map Same Export Configure Export Configure Grid

Entry #: 7 of 191 Units Specimen Methodless Common Labs Battery Max Words: 3765 records found: 0.54s

Setting User Preferences



Set User Preferences

The screenshot shows the RELMA application window. The 'File' menu is open, displaying a list of options. A blue callout box points to the 'Set User Preferences...' option in the menu. Another blue callout box points to the 'User Preferences' button at the bottom of the window. The 'User Preferences' button is located next to the 'Exit Program' button. The 'Exit Program' button has a red power icon. The 'User Preferences' button has a blue icon of a person with a list. The 'File' menu options include: Search LOINC Database, Map local terms to LOINC, Select Local Term File to Process..., View/Add/Edit Local Terms..., Report Local Terms and Their LOINC Mappings..., Export Local Terms and Their LOINC Mappings to Delimited File..., View Local Term File Summary, Review Panels, Forms & Surveys..., Import Local Terms from Delimited File..., Import Local Terms from HL7 File..., Propose a new LOINC..., Review and Submit Proposed LOINC..., Set User Preferences..., Set Preferred Language..., and Exit. The 'Review Panels, Forms & Surveys' button is a red button with a green icon of a folder and a document. The 'Import Local Terms' button is a red button with a green icon of a folder and a document. The 'Export Local Terms' button is a red button with a green icon of a folder and a document. The 'User Preferences' button is a grey button with a blue icon of a person with a list. The 'Exit Program' button is a grey button with a red power icon. The 'File' menu is a light blue menu with a blue border. The 'Tools' menu is a light blue menu with a blue border. The 'HIPAA' menu is a light blue menu with a blue border. The 'Lab Auto Mapper' menu is a light blue menu with a blue border. The 'Help' menu is a light blue menu with a blue border. The 'RELMA' logo is in the top left corner. The window title bar is blue. The window has standard Windows XP window controls (minimize, maximize, close) in the top right corner. The status bar at the bottom contains the text 'Copyright © 1995-2011 Regenstrief Institute. All rights reserved.', 'OINC Workshop OBR 12', 'Welcome to RELMA, NIH\casejt', and 'Version 5.4'.

Select User Preferences From the File Menu

...or from Welcome Screen

User Preferences **Exit Program**

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OINC Workshop OBR 12 | Welcome to RELMA, NIH\casejt | Version 5.4

Set User Preference Dialog

The image shows a screenshot of the 'RELMA User Preferences' dialog box. The 'General' tab is selected. The 'Path to LOINC Database' and 'Path to Local Terms' fields are highlighted with a red rectangle. A red note below these fields states: 'NOTE: You must restart RELMA for these changes to take effect.' A blue callout box points to the new file locations, and another blue callout box points to the 'Take me to the Welcome Screen' radio button.

RELMA User Preferences

General | Map Screen | Details Pages

Path to LOINC Database: C:\Documents and Settings\All Users\Documents\RELMA\RELMA.MDB Browse...

Path to Local Terms: C:\Documents and Settings\All Users\Documents\RELMA\LMOF3.MDB Browse...

NOTE: You must restart RELMA for these changes to take effect.

When RELMA starts, it should

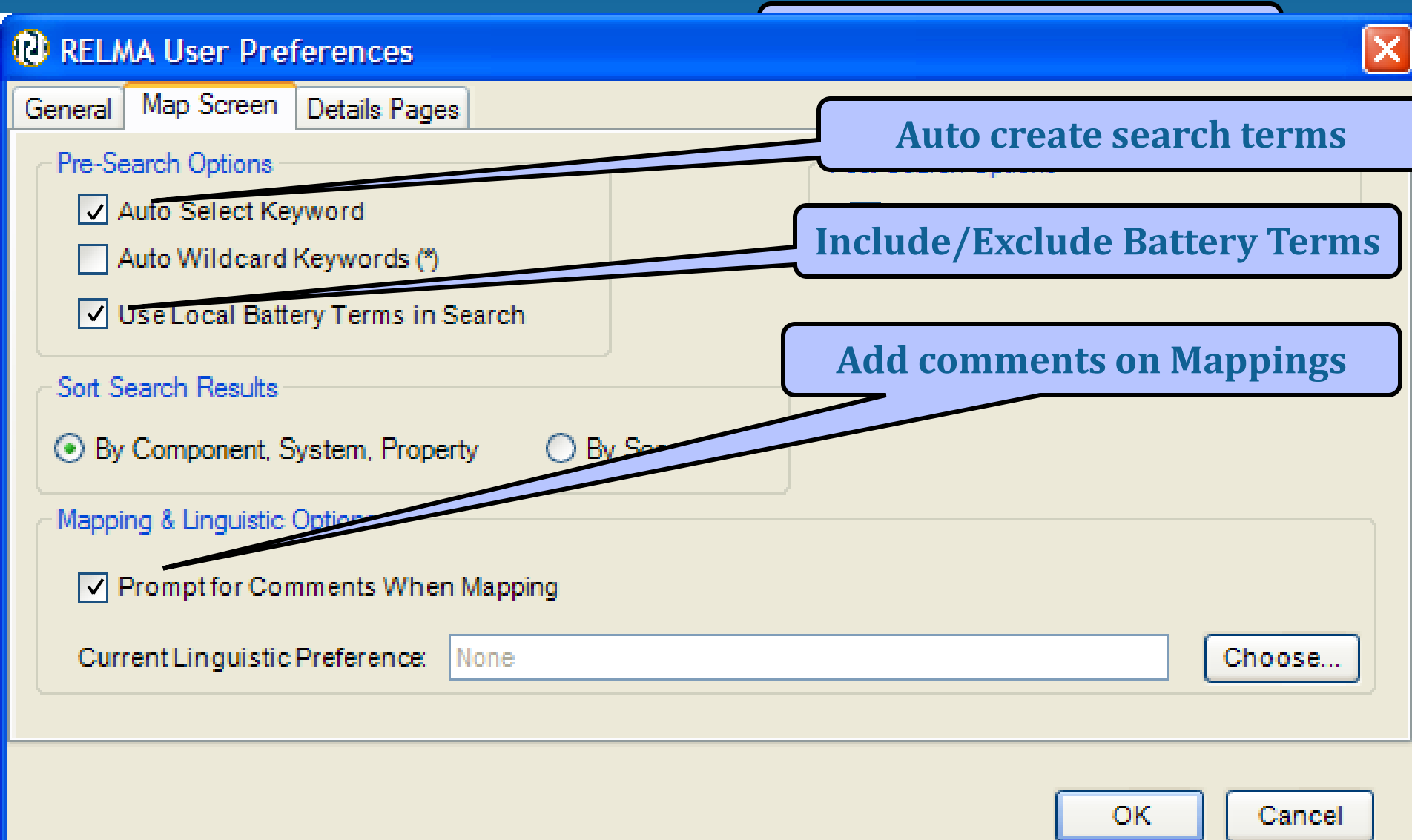
- ☒ Take me to the Welcome Screen
- ☐ Take me to the Mapping Screen
- ☐ Take me to the Simple Search Screen

New File Locations:
(See prior slide for location)

Startup Screen Preference

OK Cancel

User Map Screen Preferences



The image shows a screenshot of the 'RELMA User Preferences' dialog box. The 'Map Screen' tab is selected. Three blue callout boxes with black outlines point to specific settings: 'Auto create search terms' points to the 'Auto Select Keyword' checkbox; 'Include/Exclude Battery Terms' points to the 'Use Local Battery Terms in Search' checkbox; and 'Add comments on Mappings' points to the 'Prompt for Comments When Mapping' checkbox. The dialog also features a 'Sort Search Results' section with radio buttons for 'By Component, System, Property' (selected) and 'By Semantic', and a 'Mapping & Linguistic Options' section with a text field for 'Current Linguistic Preference' set to 'None' and a 'Choose...' button. At the bottom are 'OK' and 'Cancel' buttons.

RELMA User Preferences

General | **Map Screen** | Details Pages

Pre-Search Options

- ☒ Auto Select Keyword
- ☐ Auto Wildcard Keywords (*)
- ☒ Use Local Battery Terms in Search

Sort Search Results

☒ By Component, System, Property ☐ By Semantic

Mapping & Linguistic Options

- ☒ Prompt for Comments When Mapping

Current Linguistic Preference:

Auto create search terms

Include/Exclude Battery Terms

Add comments on Mappings

Importing Local Terms into RELMA



4 Ways to Load LMOF Files

- Direct entry into LMOF from within RELMA (painful)
 - Handy for individual entries/edits
- Create an Access table that mimics the LMOF structure (less painful but tedious)
 - Appendix A: RELMA Manual
- Create a delimited ASCII file from your local test catalog (good choice)
- Load directly from HL7 v2.x messages
 - Pulls data from OBR and OBX segments
 - Stores NTE segment data

Constructing a Local Dataset

Create extract of your test catalog with:

- Battery/Panel Code
- Battery/Panel Description or Name
- *Local Code
- *Test Description or Name
 - Include Method if Important
- Units
- Example Values
- Laboratory Section

Creating Delimited ASCII File

- RELMA can't parse free text
 - Need to create separate fields
- Can use any of these delimiters
 - Tab, Semicolon, Comma, Space
 - Can define your own
- Fields can be in any order
- Minimum required fields
 - Local Code
 - Local Description
 - *Units (highly recommended)*

Entering New Local Terms into RELMA



Manual Enter/Edit

The screenshot displays the RELMA software interface. The title bar at the top reads 'RELMA' and includes standard window control buttons. The menu bar contains 'File', 'Tools', 'HIPAA', 'Lab Auto Mapper', and 'Help'. The 'File' menu is open, showing a list of options: 'Search LOINC Database', 'Map local terms to LOINC', 'Select Local Term File to Process...', 'View/Add/Edit Local Terms...', 'Report Local Terms and Their LOINC Mappings...', 'Export Local Terms and Their LOINC Mappings to Delimited File...', 'View Local Term File Summary', 'Review Panels, Forms & Surveys...', 'Import Local Terms from Delimited File...', 'Import Local Terms from HL7 File...', 'Propose a new LOINC...', 'Review and Submit Proposed LOINCs...', 'Set User Preferences...', 'Set Preferred Language...', and 'Exit'. A callout box with a black border and a blue background points to the 'View/Add/Edit Local Terms...' menu item. The callout box contains the text 'View/Add/Edit Local Terms' in a blue serif font. The main window area is titled 'Mapping Assistant' and features four large red buttons with white text and icons: 'Propose New LOINC Term' (with a box and plus icon), 'Panels, Forms, & Surveys' (with a notepad and checkmark icon), 'Import Local Terms' (with a folder and down arrow icon), and 'Export Local Terms' (with a folder and up arrow icon). At the bottom of the window, there is a grey bar with two buttons: 'User Preferences' (with a user icon) and 'Exit Program' (with a power icon). The footer of the window contains the text 'Copyright © 1995-2011 Regenstrief Institute. All rights reserved.' and a status bar with 'OINC Workshop OBR 12', 'Welcome to RELMA, NIH\casejt', and 'Version 5.4'.

View/Add/Edit Local Terms

Mapping Assistant

- Propose New LOINC Term
- Panels, Forms, & Surveys
- Import Local Terms
- Export Local Terms

User Preferences Exit Program

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Edit Term Dialog

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem	Units	LOINC
1	312370	MIC		309651				
2	312370	MIC		708007				
3	665670	Basic Metabolic Panel		754689				
4	665670	Basic Metabolic Panel		755363				
5	665670	Basic Metabolic Panel		755364	Sodium SerPl QN		mmol/L	
6	665670	Basic Metabolic Panel		755365	Potassium SerPl QN		mmol/L	
7	665670	Basic Metabolic Panel		755366	Chloride SerPl QN		mmol/L	
8	665670	Basic Metabolic Panel		755367	Carbon Dioxide SerPl QN		mmol/L	
9	665670	Basic Metabolic Panel		755368	Glucose SerPl QN		mg/dL	
				755369	BUN SerPl QN		mg/dL	
				755370	Calcium T			
				755177	Factor VI			
				755179	Factor X Assay		%	
				755181	Factor XI Assay		%	
				810892	Anti-A			
				810893	Anti-B			
				755435	Carboxyhemoglobin Bld		%	
				755474	Methemoglobin Bld QN		%	
				755475	Oxyhemoglobin Bld QN		%	
				755479	C-Reactive Prot SerPl QN		mg/dL	
				755372	Benzodiaz Scn SerPl QL			
				755496	Tricyclic..			

Text alignment option

Print Preview List

Truncated Text

Print preview

Entry #: 1 of 190

3765 records found: 0.21s

Export Local Term File

Export Local Term File

Term File to Export: LOINC Workshop OBR 12/8

Field Delimiter: Tab

Surround Text Field with Double Quotations?
☐ Yes ☐ No

Fields to Write to Output File

<input checked="" type="checkbox"/> Test Code System	<input checked="" type="checkbox"/> LOINC Version
<input checked="" type="checkbox"/> Units	<input checked="" type="checkbox"/> LOINC Number
<input checked="" type="checkbox"/> Comments	<input checked="" type="checkbox"/> LOINC Long Common Name
<input checked="" type="checkbox"/> Name of Mapper	<input checked="" type="checkbox"/> LOINC Short Name
<input checked="" type="checkbox"/> Date Term was Mapped	<input checked="" type="checkbox"/> LOINC Component
	<input checked="" type="checkbox"/> LOINC Property
	<input checked="" type="checkbox"/> LOINC Time Aspect
	<input checked="" type="checkbox"/> LOINC System
	<input checked="" type="checkbox"/> LOINC Scale
	<input checked="" type="checkbox"/> LOINC Method



☒ Include field names as first row

Write File Exit

LOINC Workshop OBR 12/8

Delimiters supported:
Tab, comma, bar (|)

Add Local Term

 Add Local Term to LOINC Workshop OBR 

Local Term

Local Term File: LOINC Workshop OBR

Lab Section: MICRO

Battery Code:

Battery Name:

Battery Code System:

Test Code: BUBPLAG

Test Name: BUBONIC PLAGUE – RRT PCR

Test Code System:

Comments:

Mapped To:

Institution:

Units:

Obs:

Patients:

Min Value:

Max Value:

Avg Value:

Earliest Obs:

Latest Obs:

Sample Data:

Row	Count	Sample Value	Units	Abnormal Flag	Normal Range	OBR Note	OBX Note

Truncated Text

Preview

Save

Cancel

Click to Add to Current Working File

Search Local Term File

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Calcium

Found: 2 (1.05%) of 190

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem	Units	LOINC
11	665670	Basic Metabolic Panel		755370	Calcium Total SerPl QN		mg/dL	
134	795511	PTH C-Terminal Ser QN		814195	Calcium Ser QN		mg/dL	

Return to Full List

Truncated Text Return to Local Term File Find Local Term in File Print Preview

Entry #: 1 of 190 3765 records found: 0.21s

[illegible][illegible]

Steps to Import Local Terms

1. Click **Import Local Terms** Button from Main Menu
 - a) **File>Import Local Terms from Delimited File**
2. Locate your local terms text file
 - a) E.g. WinXP Sample files loaded into C:\Documents and Settings\All Users\Shared Documents\RELMA
3. Name your Working Set
 - a) LMOF database can contain multiple work sets
4. Define default section (Optional)
5. Identify file delimiter
6. Assign fields to LMOF attributes
 - a) Ignore fields you don't need
 - b) Combine fields if needed
7. Check "Case-sensitive" if needed
8. Click **Import**.

Example Tab-Delimited File

File	Edit	Format	View	Help
312370	MIC	309651	Nafcillin	
312370	MIC	708007	Moxifloxacin	
665670	Basic Metabolic Panel		754689	Anion Gap mmol/L
665670	Basic Metabolic Panel		755363	Creatinine SerPl QN mg/dL
665670	Basic Metabolic Panel		755364	Sodium SerPl QN mmol/L
665670	Basic Metabolic Panel		755365	Potassium SerPl QN mmol/L
665670	Basic Metabolic Panel		755366	Chloride SerPl QN mmol/L
665670	Basic Metabolic Panel		755367	Carbon Dioxide SerPl QN mmol/L
665670	Basic Metabolic Panel		755368	Glucose SerPl QN mg/dL
665670	Basic Metabolic Panel		755369	BUN SerPl QN mg/dL
665670	Basic Metabolic Panel		755370	Calcium Total SerPl QN mg/dL
667682	Factor VIII(8)-Assay		755177	Factor VIII-C Assay %
667685	Factor X(10) Assay		755179	Factor X Assay %
667688	Factor XI(11) Assay		755181	Factor XI Assay %
684308	ABO and Rh		810892	Anti-A
684308	ABO and Rh		810893	Anti-B
685703	Cooximetry Panel Bld QN		755435	Carboxyhemoglobin Bld QN %
685703	Cooximetry Panel Bld QN		755474	Methemoglobin Bld QN %
685703	Cooximetry Panel Bld QN		755475	Oxyhemoglobin Bld QN %
685733	CRP SerPl QN		755479	C-Reactive Prot SerPl QN mg/dL
685796	Drug Scn SerPl QL		755372	Benzodiaz Scn SerPl QL
685796	Drug Scn SerPl QL		755496	Tricyclic Antidepressants Scn SerPl QL
685796	Drug Scn SerPl QL		755497	Salicylate SerPl QN mg/dL
685796	Drug Scn SerPl QL		755498	Ethanol Pl QN mg/dL
685849	Hgb A1C HPLC Bld QN		755572	Hemoglobin A1C HPLC Bld QN %
685853	Hgb A1C POC		755573	"Hemoglobin A1C, POC" %
686283	PTH Intact Ser QN		755757	PTH Intact Ser QN pg/mL
693154	B Cell Subsets		755895	B Cells- IgG %
693154	B Cell Subsets		755896	B Cells- IgM %
693154	B Cell Subsets		755897	B Cells- IgD %
693154	B Cell Subsets		755898	B Cells- IgA %
693154	B Cell Subsets		755906	Flow Cytometry Interpretation
693154	B Cell Subsets		2773454	B Cell Subset
693154	B Cell Subsets		7124661	Flow Cytometry ASR Comment

Importing Local Files

The screenshot displays the RELMA software window. The title bar reads 'RELMA' with standard window controls. The menu bar includes 'File', 'Tools', 'HIPAA', 'Lab Auto Mapper', and 'Help'. The 'File' menu is open, listing various options. A blue callout box with a black border points to the 'Import Local Terms from Delimited File...' option in the menu. To the right of the menu, a vertical stack of red buttons with white text and icons is visible: 'Propose New LOINC Term' (box with plus), 'Panels, Forms, & Surveys' (notepad with checkmark), 'Import Local Terms' (folder with down arrow), and 'Export Local Terms' (folder with up arrow). At the bottom of the window, there is a grey bar with 'User Preferences' (person icon) and 'Exit Program' (power icon). The footer contains copyright information and version details.

Select Import Local Terms from Delimited File...

Propose New LOINC Term

Panels, Forms, & Surveys

Import Local Terms

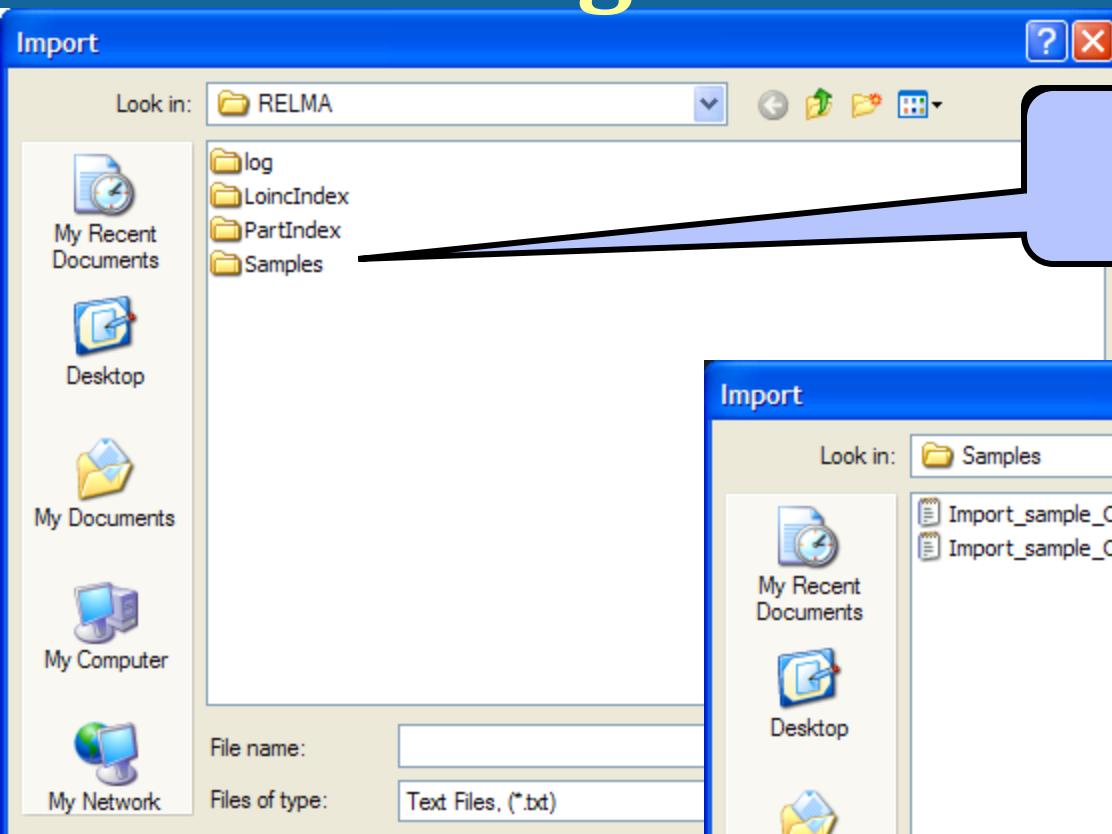
Export Local Terms

User Preferences **Exit Program**

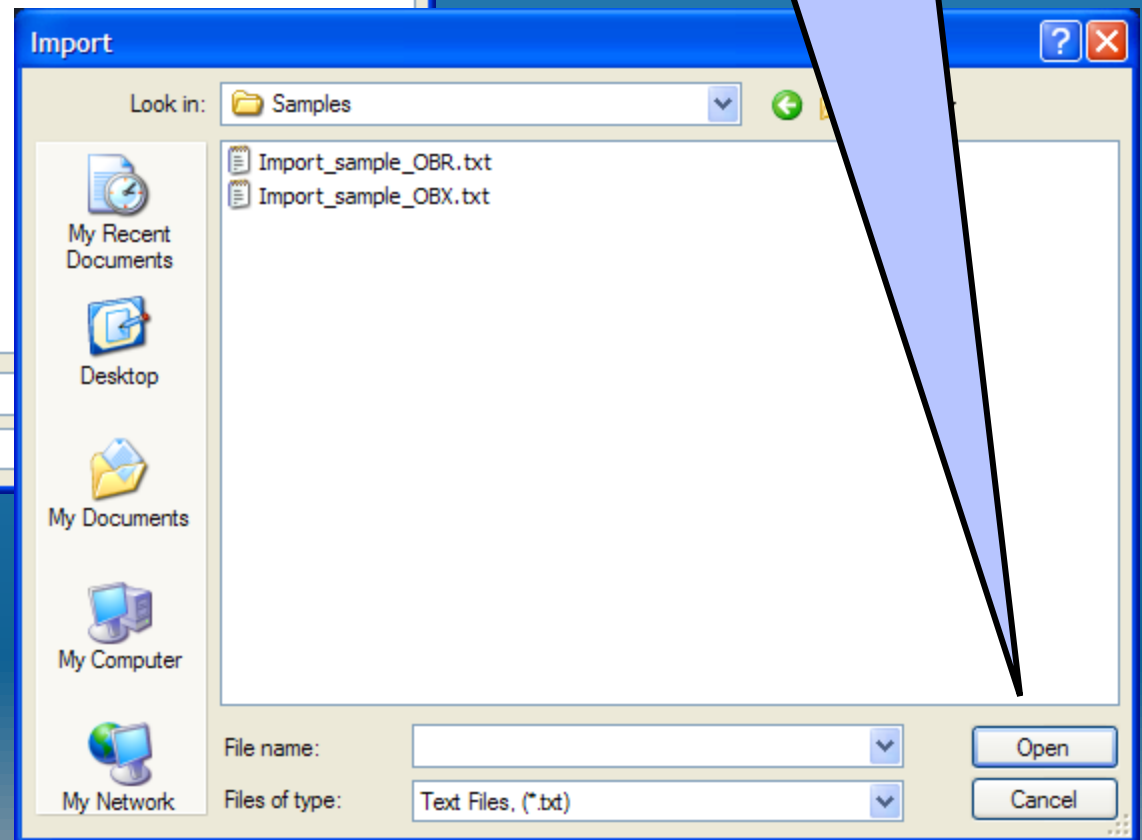
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Navigate to File Location





Sample files stored in
RELMA Directory



Open File in RELMA

Import Local Terms from Delimited File

Name of Local Term File: 

Default Lab Section: 

Choose the delimiter that separates your fields

☐ Tab ☐ Semicolon ☐ Comma ☐ Space ☒ Other:

☐ First Row Contains Column Headers

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow to the right of the drop down list, and select the field into which you desire your data to be imported. TestCode and TestDescription are required fields.

	TestCode	TestDescription	Units
1	312370 MIC	30965	
2	312370 MIC	70800	
3	665670 BasicMetabol		
4	665670 BasicMetabol		
5	665670 BasicMetabolic Panel	755364 Sodium SerPl QN	mmol/L
6	665670 BasicMetabolic Panel	755365 Potassium SerPl QN	mmol/L
7	665670 BasicMetabolic Panel	755366 Chloride SerPl QN	mmol/L
8	665670 BasicMetabolic Panel	755367 Carbon Dioxide SerPl QN	mmol/L
9	665670 BasicMetabolic Panel	755368 Glucose SerPl QN	mg/dL
10	665670 BasicMetabolic Panel	755369 BUN SerPl QN	mg/dL
11	665670 BasicMetabolic Panel	755370 Calcium Total SerPl QN	mg/dL
12	667682 Factor VIII(8)-Assay	755177 Factor VIII-C Assay	%
13	667685 Factor X(10) Assay	755179 Factor X Assay	%
14	667688 Factor XI(11) Assay	755181 Factor XI Assay	%
15	684308 ABO and Rh	810892 Anti-A	
16	684308 ABO and Rh	810892 Anti-B	

☐ Case-sensitive Import

Need Import Information

You still need to enter the test code and test description before RELMA can import your data.

Import Button

Name your working set. RELMA allows multiple sets in LMOF database

C:\Documents and Settings\All Users\Documents\RELMA\Samples\Import_sample_OBR.txt

Fields Segregated

Import Local Terms from Delimited File

Name of Local Term File:

Default Lab Section:

You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields

☒ Tab ☐ Semicolon ☐ Comma ☐ Space ☐ Other:

☐ First Row Contains Column Headers

Text Qualifier:

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow right of the drop down list, and select the field into which you desire your data to be imported. Test Description are required fields.

	#1	#2	#3	#4	#5
	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field
1	Ignore Field		309651	Nafcillin	
2	Battery Code		708007	Moxifloxacin	
3	Battery Description	Public Panel	754689	Anion Gap	mmol/L
4	Battery Code System	Public Panel	755363	Creatinine SerPl QN	mg/dL
5	Test Code	Public Panel	755364	Sodium SerPl QN	mmol/L
6	Test Description	Public Panel	755365	Potassium SerPl QN	mmol/L
7	665670	Basic Metabolic Panel	755366	Chloride SerPl QN	mmol/L
8	665670	Basic Metabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L
9	665670	Basic Metabolic Panel	755368	Glucose SerPl QN	mg/dL
10	665670	Basic Metabolic Panel	755369	BUN SerPl QN	mg/dL
11	665670	Basic Metabolic Panel	755370	Calcium Total SerPl QN	mg/dL
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%
13	667685	Factor X(10) Assay	755179	Factor X Assay	%
14	667688	Factor XI(11) Assay	755181	Factor XI Assay	%
15	684308	ABO and Rh	810892	Anti-A	
16	684308	ABO and Rh	810892	Anti-B	

☐ Case-sensitive Import

C:\Documents and Settings\All Users\Documents\RELMA\Samples\Import_sample_OBR.txt

Choose field name

Ready to Import

Import Local Terms from Delimited File

Name of Local Term File:

Default Lab Section:

You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields

☒ Tab

☐ First Row Contains Column Headers

Text Qualifier:

To assign a column of data to one of the fields, click on the header row of the grid, click on the arrow to the right of the drop down list, and select the field into which your data to be imported. TestCode and Test Description are required fields.

	#1	#2	#3	#4	#5
	Battery Code	Battery Description	Test Code	Test Description	Units
1	312370	MIC	309651	Nafcillin	
2	312370	MIC	708007	Moxifloxacin	
3	665670	Basic Metabolic Panel	754689	Anion Gap	mmol/L
4	665670	Basic Metabolic Panel	755363	Creatinine SerPl QN	mg/dL
5	665670	Basic Metabolic Panel	755364	Sodium SerPl QN	mmol/L
6	665670	Basic Metabolic Panel	755365	Potassium SerPl QN	mmol/L
7	665670	Basic Metabolic Panel	755366	Chloride SerPl QN	mmol/L
8	665670	Basic Metabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L
9	665670	Basic Metabolic Panel	755368	Glucose SerPl QN	mmol/L
10	665670	Basic Metabolic Panel	755369	BUN SerPl QN	mmol/L
11	665670	Basic Metabolic Panel	755370	Calcium Total SerPl QN	mmol/L
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	mmol/L
13	667685	Factor X(10) Assay	755179	Factor X Assay	mmol/L
14	667688	Factor XI(11) Assay	755181	Factor XI Assay	%
15	684308	ABO and Rh	810892	Anti-A	

☐ Case-sensitive Import

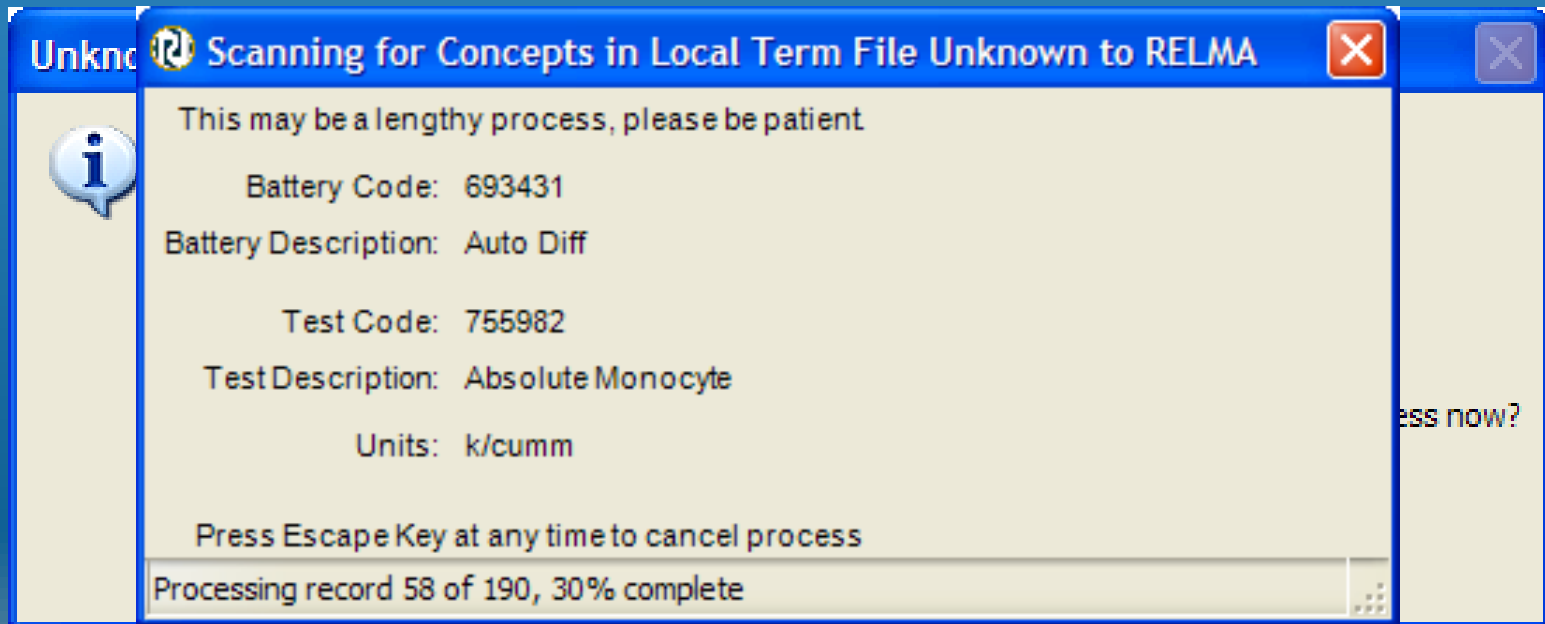
Minimum assignments

Now you can click the Import button!

C:\Documents and Settings\All Users\Documents\RELMA\Samples\Import_sample_OBR.txt

Post-Processing of Local File

- After import, RELMA Searches for terms (words) that it does not recognize
- Stored in a file for future reconciliation



Change Local Term File

The screenshot shows the RELMA application window with the 'File' menu open. The menu items are: Search LOINC Database, Map local terms to LOINC, Select Local Term File to Process..., View/Add/Edit Local Terms..., Report Local Terms and Their LOINC Mappings..., Export Local Terms and Their LOINC Mappings to Delimited File..., View Local..., Review P..., Import Lo..., Import Lo..., Propose a..., Review a..., Set User..., Set Prefe..., and Exit. A callout points to the 'Select Local Term File to Process...' menu item with the text 'Select the Working Set'.

The 'Select Local Term File to Process' dialog box is open, showing a table of local term files. A callout points to the table with the text 'Current mapping status'.

Term File Name	# of Terms	#Mapped	#Unmapped	% Mapped
LOINC Workshop OBR	190	0	190	0
SAMPLE	105	6	99	6

At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

Alternative Pragmatic Way

- Use large set of HL7 messages
- Automatically make dataset of:
 - OBR ID
 - OBR description
 - OBX ID
 - OBX description
 - Sample of results with
 - Real values
 - Units
 - Abnormal flags
 - Normal ranges

Generate Local term file from HL7 messages

The screenshot shows the RELMA software interface. The 'File' menu is open, displaying various options. A blue callout box with a black border points to the 'Import Local Terms from HL7 File...' option. To the right of the menu are four red buttons with white text and icons: 'Propose New LOINC Term' (box with plus), 'Panels, Forms, & Surveys' (notepad with checkmark), 'Import Local Terms' (folder with down arrow), and 'Export Local Terms' (folder with up arrow). At the bottom, there are two buttons: 'User Preferences' (person icon) and 'Exit Program' (power icon). The footer contains copyright information and version details.

RELMA

File Tools HIPAA Lab Auto Mapper Help

Search LOINC Database
Map local terms to LOINC
Select Local Term File to Process...
View/Add/Edit Local Terms...
Report Local Terms and Their LOINC Mappings...
Export Local Terms and Their LOINC Mappings to Delimited File...
View Local Term File Summary
Review Panels, Forms & Surveys...
Import Local Terms from Delimited File...
Import Local Terms from HL7 File...
Propose a new LOINC...
Review and Submit Proposed LOINCs...
Set User Preferences...
Set Preferred Language...
Exit

Select Import Terms from HL7 File

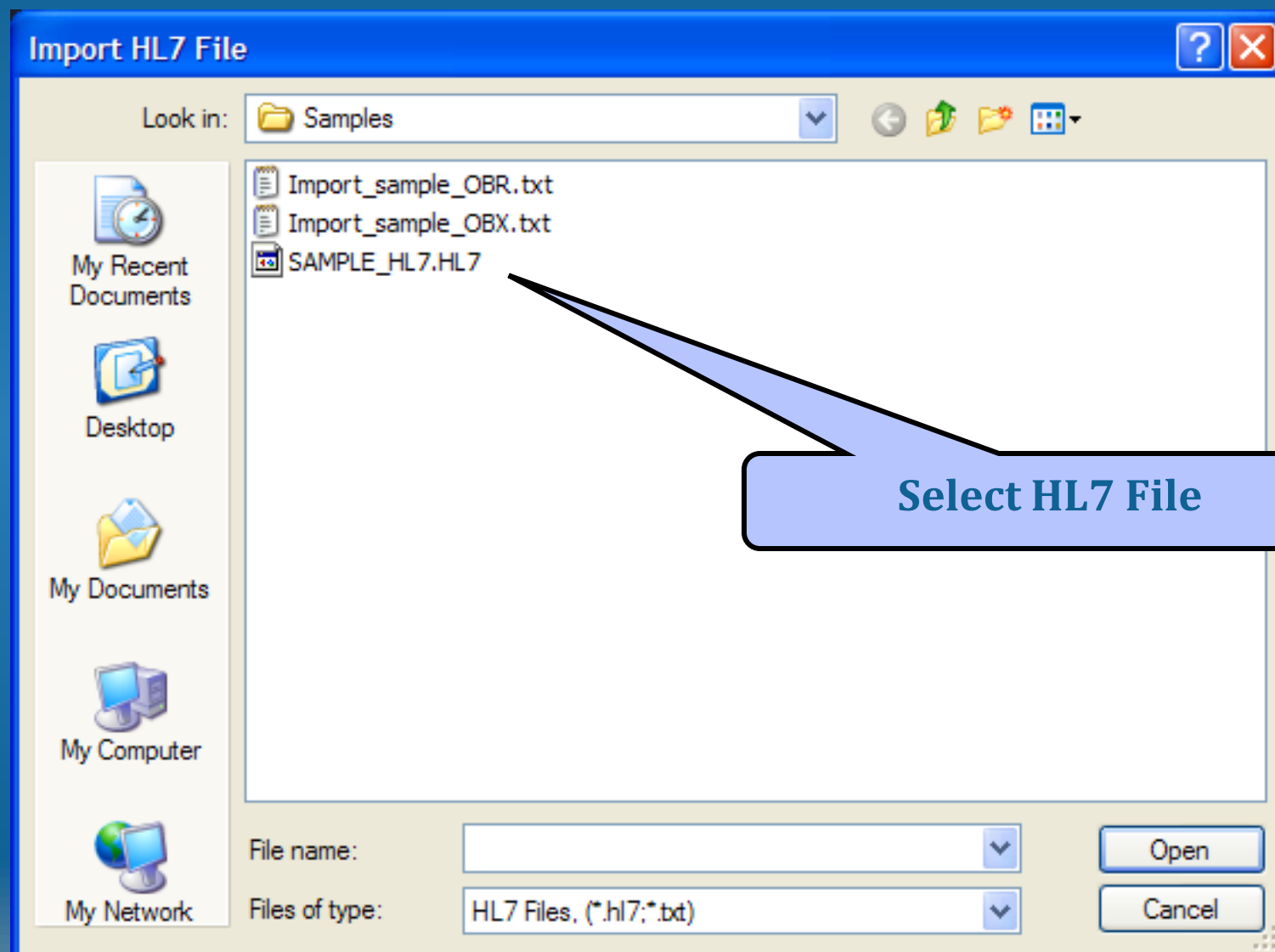
Propose New LOINC Term
Panels, Forms, & Surveys
Import Local Terms
Export Local Terms

User Preferences Exit Program

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OINC Workshop OBR 12 Welcome to RELMA, NIH/casejt Version 5.4

Select File to Import



Specify HL7 File Name and Sample Size

Import Local Term File from HL7

Path to HL7 File: C:\Documents and Settings\All Users\Documents\RELMA\Samples\SAMPLE_HL Browse... ?

Name of Local Term File: LOINC Workshop OBR HL7 12/8

Default Lab Section: You may create a new lab section by typing a name in the box.

Import Local Terms from: ☒ Primary Codes Only (Default) ☐ In Primary and Alternate Codes ☐ Alternate Codes Only

Sample Values to Store: ☐ Skip Import Process

HL7 Message Filter: ^R01

of Most Frequent: 5

of Highest (numeric): 5

of Lowest (numeric): 5

Import Progress

Statistics	Value
------------	-------

Stop Import Terms Exit

Callouts:

- Name the Local Term File (working set)
- Select which codes to store
- Skip import of sample values
- Select the number of sample values

HL7 Messages Data Statistics

Import Local Term File from HL7

Path to HL7 File:


Name of Local Term File:

Default Lab Section: You may create a new lab section by typing a name in the box.

Import Local Terms from: ☒ Primary Codes Only (Default)
☐ Both Primary and Alternate Codes
☐ Alternate Codes Only

HL7 Message Filter:

Sample Values to Store
☐ Skip Import Process # of Most Frequent
of Highest (numeric)
of Lowest (numeric)

Post Processing Progress: 

Statistics	Value
Number of Messages	195
Number of OBR Segments	195
Number of OBX Segments	1,217
Number of NTE Segments	24
Msgs / Sec	5
Total Time	00:00:42
Estimated Time till Completion	00:00:00
File Size	157,491

Unknown Concept Scan

The import process has imported 283 terms.

RELMA needs to inspect the LOINC Workshop OBR HL7 12/8 file. Can RELMA initiate the process now?

New Terms added to LMOF

Map Local Terms - LOINC Workshop OBR

File Tools HIPAA Intelligent Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Row	Battery Code	Bat	Codesystem	Test Code	Test Description	Codesystem	Units	LOINC	Order	# Pat	# Obs	Recent
250	1210	RO		13672	UROBILINOGE...	L	EU/DL...					12/5/20
251	1210	RO		13672	UROBILINOGE...	L	EU/DL...					12/5/20
252	1210						(12/5/20
253	1210						#/HPF					12/5/20
254	1210						#/HPF					12/5/20
255	1210						(12/5/20
256	1210						#/HPF					12/5/20
257	1210	ROUTINE...		1231	AMORPHOUS...	L						12/6/20
258	1804	CULTURE...		4839	PREDOM ORG	LCR						12/1/20
259	1804	CULTURE...		4840	ORG 2	LCR						12/1/20
260	1804	CULTURE...		4841	ORG 3	LCR						12/1/20
261	1804	CULTURE...		4842	ORG 4	LCR						12/1/20
262	4816	FUNGAL AB...		4817	HISTORI...							12/4/20
263	4816	FUNGAL AB...		4818	MYCIN...	L						12/4/20
264	4816	FUNGAL AB...			COCCIDIO SCN	L						12/4/20
265	4816	FUNGAL AB...		4820	ASPERGIL SCN	L						12/4/20
266	5381	CARBOXY...		5381	CARBOXYHEM...	L	% SAT					12/6/20
267	5605	PCA PANEL 2		4720	AMMONIA	L	mcmol/L					12/6/20
268	5635	BLOOD GAS...		6131	PH BLD	L						12/5/20
269	5635	BLOOD GAS...		6139	PCO2	L	mm Hg					12/5/20
270	5635	BLOOD GAS...		6140	PO2	L	mm Hg					12/5/20
271	5635	BLOOD GAS...		5870	BASE EXCESS...	L	mmol/L					12/5/20
272	5635	BLOOD GAS...		6136	BICAR(HCO3)...	L	mmol/L					12/5/20
273	5635	RI OOD GAS		6141	CO2 TOTAL	I	mmol/l					12/5/20

Click on "Edit Term" to see Sample Data

New Battery Code

Truncated Text Print Preview

Entry #: 1 of 473 Multi-axial search tree load time: 10.24s

Sample Results for Observation

Local Term

Local Term File: LOINC Workshop OBR

Lab Section:

Battery Code: 5635

Battery Name: BLOOD GAS PANEL

Battery Code System:

Test Code: 6131

Test Name: PH BLD

Test Code System: L

Comments:

Mapped To:

Institution:

As:

Obs:

Patients:

Min Value:

Max Value:

Avg Value:

Earliest Obs: 12/5/2004

New Test Code

Sample Values from Messages

Sample Data:

Row	Count	Sample Value	Units	Abnormal Flag	Normal Range	OBR Note	OBX Note
1	1	7.440		H	7.380-7.42		
2	2	7.060		LL	7.380-7.42	, Results Checked	
3	1	7.410			7.380-7.42		
4	1	7.500		H	7.380-7.42		
5	1	7.340		L	7.380-7.42		

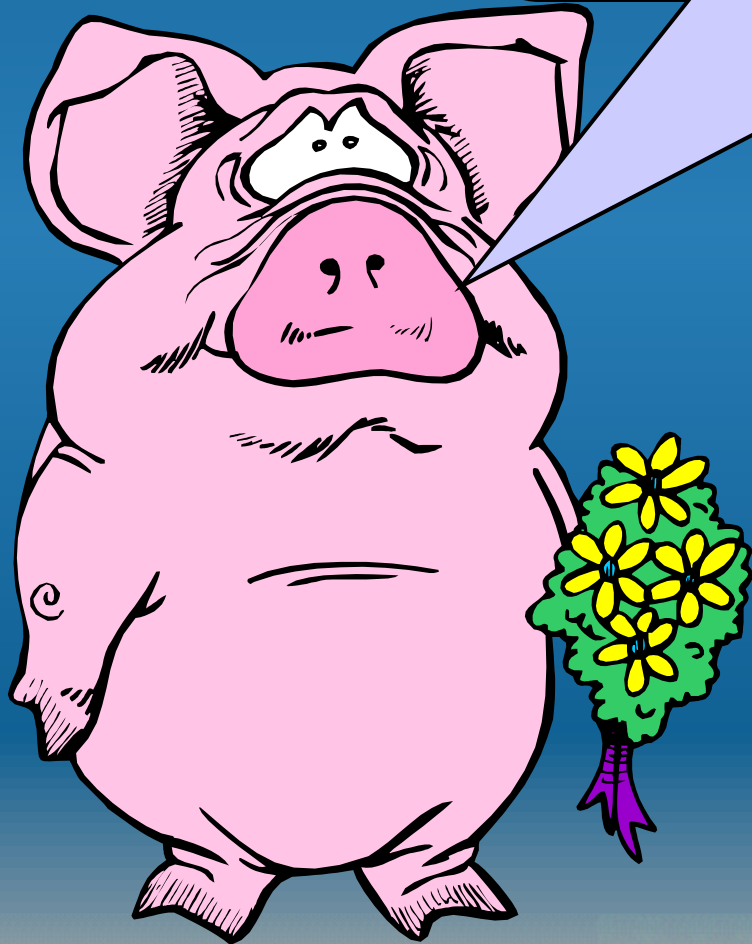
Truncated Text

Print Preview

Save

Cancel

Lenny L'OINC says:
**“Load the Sample Files
Into RELMA now!”**



- Import the two sample files provided
 - Import_Sample_OBR.txt
 - Contains battery code and description
 - Import_Sample_OBX.txt
 - Contains test code and description
- Create 2 working sets
- Load your personal data set

Cleaning your data



Preparing your Data for Mapping

- Improve mapping success by:
 - Expanding abbreviations
 - Standardizing colloquial terms
 - Ignoring “administrative” terms
 - Standardizing time references
- Can be done prior to importing
- Better to use tools built into RELMA

RELMA Cleaning Tools

The screenshot displays the RELMA software window. The title bar reads "RELMA" and includes standard window controls. The menu bar contains "File", "Tools", "HIPAA", "Lab Auto Mapper", and "Help". The "Tools" menu is open, listing several options: "Define Default Specimens for Local Lab Sections...", "Define Word Substitutions for Local Term Vocabulary...", "Check the Test Names in Local Term Submission...", "Check the Units in Local Term Submission...", "Find Local Terms Mapped to Deprecated/Discouraged LOINCs...", and "Context Specific Hierarchies...". A callout box points to the "Check the Test Names in Local Term Submission..." option with the text "Use this tool to edit unknown terms".

Below the menu, the main workspace contains several red buttons with icons and text:

- Assistant** (text only)
- Propose New LOINC Term** (icon: box with plus)
- Map Local Terms to LOINC** (icon: magnifying glass with checkmark)
- View/Add/Edit Local Terms** (icon: notepad with pencil)
- Report Local Terms** (icon: printer)
- Panels, Forms, & Surveys** (icon: notepad with checkmark)
- Import Local Terms** (icon: folder with down arrow)
- Export Local Terms** (icon: folder with up arrow)



At the bottom, there is a grey bar with two buttons: **User Preferences** (icon: person with ID card) and **Exit Program** (icon: power button).

The footer contains the following text:

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OINC Workshop OBR 12 Welcome to RELMA, NIH\casejt Version 5.4

Review Unknown Local Terms

 Revise Unknown Local Term Concepts 

Match RELMA Concepts to Unknown Words

Local Term Information

ID	Battery	Battery Description	Test	Test Description	Units	Lab Section
1011	693431	Auto Diff				
1012	693431	Auto Diff				
1013	693431	Auto Diff				
1014	693431	Auto Diff				
1423	27883	RXL BATTERY	15598	CK MB % Tot		
1370	16813	LYMPHOMA/LEUK IMMUNO	13789	CD2 T Cells %		

If the word or unit is an abbreviation, acronym or truncation, please type in a fully spelled out version of the concept. If the word or unit is already spelled out, see if there is a equivalent in the LOINC dictionary.

Unknown Word: %

Enter Your Word:

Known Words:

- '%
- %'
- a
- b
- c
- d
- e
- f
- g

May Re-Scan File for Unknown Terms

Replace Everywhere

Replace for Lab Section

Replace for Term

Ignore Everywhere

Ignore for Lab Section

Ignore for Term

Scan For Unknown Concepts



Print Concepts Not in LOINC

Exit

First Previous Next Last

Item 1 of 52 unknown words LOINC Workshop OBR

Replace Local Terms

 Revise Unknown Local Term Concepts 

Match RELMA Concepts to Unknown Words

Local Term Information

ID	Battery	Battery Description	Test	Test Description	Units	Lab Section
1069	768328	Allergen Helminthospr IgG	963253	Allergen Helminthospr IgG		
1068	768328	Allergen Helminthospr IgG	772546	Allergen Helminthosporium spp IgG		

If the word or unit is an abbreviation, acronym or truncation of a larger word or phrase, please enter the full word or phrase in the Enter Your Word field. If the word or unit is a synonym, please enter the synonym in the Enter Your Word field.

Unknown Word: **HELMINTHOSPR**

Enter Your Word:

Known Words:

- HELMET
- HELMINTH
- HELMINTHOSPORIUM**
- HELMINTHS

Replacement Options

- Replace Everywhere
- Replace for Lab Section
- Replace for Term
- Ignore Everywhere
- Ignore for Lab Section
- Ignore for Term
- Scan For Unknown Concepts
- Print Concepts Not in LOINC
- Exit

First Previous Next Last

Item 17 of 52 unknown words LOINC Workshop OBR

RELMA Cleaning Tools

The screenshot displays the RELMA software interface. At the top is a blue title bar with the RELMA logo and window controls. Below it is a menu bar with 'File', 'Tools', 'HIPAA', 'Lab Auto Mapper', and 'Help'. The 'Tools' menu is open, showing a list of options: 'Define Default Specimens for Local Lab Sections...', 'Define Word Substitutions for Local Term Vocabulary...', 'Check the Test Names in Local Term Submission...', 'Check the Units in Local Term Submission...', 'Find Local Terms Mapped to Deprecated/Discouraged LOINCs...', and 'Context Specific Hierarchies...'. A callout box points to the 'Define Word Substitutions...' option with the text 'Use this tool to make global substitutions'. Below the menu is a red bar with the text 'Assistant'. The main area contains several red buttons with icons: 'Propose New LOINC Term' (box with plus), 'Map Local Terms to LOINC' (magnifying glass with check), 'Panels, Forms, & Surveys' (notepad with check), 'View/Add/Edit Local Terms' (ruler and pencil), 'Import Local Terms' (folder with down arrow), 'Report Local Terms' (printer), and 'Export Local Terms' (folder with up arrow). At the bottom is a grey bar with 'User Preferences' (person icon) and 'Exit Program' (power icon). The footer contains copyright information, a welcome message, and the version number.

RELMA

File Tools HIPAA Lab Auto Mapper Help

Define Default Specimens for Local Lab Sections...

Define Word Substitutions for Local Term Vocabulary...

Check the Test Names in Local Term Submission...

Check the Units in Local Term Submission...

Find Local Terms Mapped to Deprecated/Discouraged LOINCs...

Context Specific Hierarchies...

Use this tool to make global substitutions

Assistant

Propose New LOINC Term

Map Local Terms to LOINC

Panels, Forms, & Surveys

View/Add/Edit Local Terms

Import Local Terms

Report Local Terms

Export Local Terms

User Preferences Exit Program

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OINC Workshop OBR 12 Welcome to RELMA, NIH\casejt Version 5.4

Term Substitution

Define Word Substitutions for Local Term Vocabulary

Local Word
TOTL

Local Translation
TOTAL

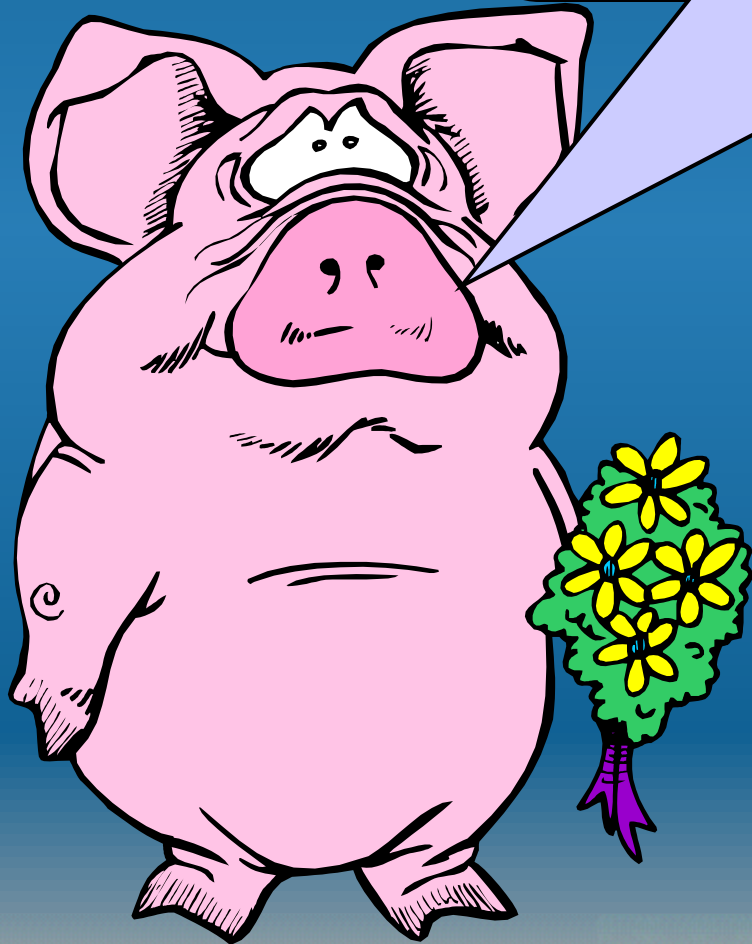
RELMA's Suggestions
TOTAL
TOTALS

Options
☒ Ignore Local Word
Limit to Local Term File

Add New Save Delete Exit

Save this global substitution
for only this working set

Lenny L'OINC says:
**“Begin to clean your
data now!”**

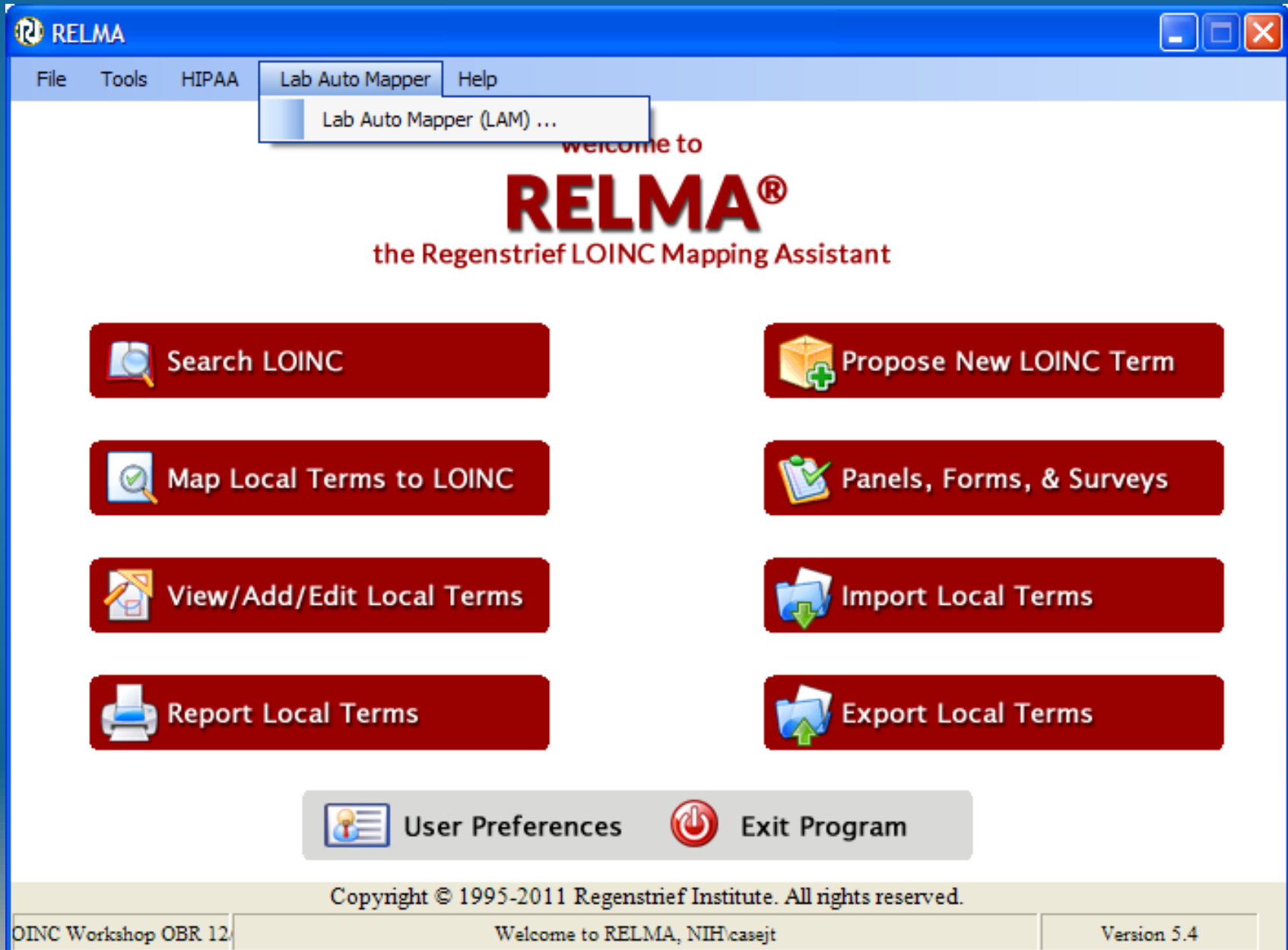


- Using the OBR or OBX sample files, take 15-20 minutes to clean up these unrecognized terms
 - You may use your own data if you wish.

Lab Auto Mapper

- Run in batch mode to find N- closest terms
- Can then use this output to do final mapping
- Again units are VERY important
- Can pick all limits available to regular mapping

Picking the Lab Auto Mapper



Lab Auto Mapper Start Screen

Lab Auto Mapper (LAM)

This process scans the Local Term File using a recommendation engine to propose probable LOINC terms. Once completed, you may use the probable list to easily map your terms via the 'Choose From' screen to LOINC codes.

Warning - This function is optimized for processing of lab terms. Using this function on other types of codes may produce unexpected results. The statistical data used by this function is based on a US sample.

Process only unmapped local terms ☒ Maximum number of close LOINC term matches to return: 10

Prefer Common Lab Results: ☒

Local Term Currently Processing

This may be a lengthy process, please be patient.

OBR-4 (Battery) Code: Description:

OBX-3 (Test) Code: Description:

Process Report Map Exit

LOINC OBR 12/6

Can restrict search to
common tests

Maximum number of terms
to return

Lab Auto Mapper Start Screen

Lab Auto Mapper (LAM)

This process scans the Local Term File using a recommendation engine to propose probable LOINC terms. Once completed, you may use the probable list to easily map your terms via the 'Choose From' screen to LOINC codes.

Warning - This function is optimized for processing of lab terms. Using this function on other types of codes may produce unexpected results. The statistical data used by this function is based on a US sample.

Process only unmapped local terms ☒ Maximum number of close LOINC term matches to return:

Prefer Common Lab Results: ☒

Local Term Currently Processing

This may be a lengthy process, please be patient.

OBR-4 (Battery) Code: Description:

OBX-3 (Test) Code: Description:

Process Terms Report Map to Results Exit

Now processing term 160 of ... Press Esc to Abort. LOINC Workshop OBR 12/6

Local test code

Local terms used for
mapping

Lab Auto Mapper - Mapping Screen

Choose from N Best LOINC Matches to Local Terms

Revised: Ignored Words:
panel
Part Detection Phrases:
{Probe:creatinine} -> (PART:{LP32035-5:Creatinine})

Comments:

Lab Section:

Battery: **Basic Metabolic Panel** 665670

Test: **Creatinine SerPI QN** 755363 U = mg/dL

LOINC:

Local Term Details

Map UnMap

Words Matched	LOINC Words	LOINC	Component	Property	Time	System	Scale	Method
4	3	2160-0	CREATININE	MCNC	PT	[SER]/[PLAS]	[QN]	
4	4	40248-7	CREATININE*BASELINE	MCNC	PT	[SER]/[PLAS]	[QN]	
4	5	16188-5	CREATININE*2H SPECIMEN	MCNC	PT	[SER]/[PLAS]	[QN]	
4	5	16189-3	CREATININE*4H SPECIMEN	MCNC	PT	[SER]/[PLAS]	[QN]	
4	5	44784-7	CREATININE	MCNC	STDY*MAX	[SER]/[PLAS]	[QN]	
4	5	11042-9	CREATININE*PRE DIALYSIS	MCNC	PT	[SER]/[PLAS]	[QN]	
4	5	11041-1	CREATININE*POST DIALYSIS	MCNC	PT	[SER]/[PLAS]	[QN]	
4	6	39955-0	CREATININE*PRE XXX CHALLENGE	MCNC	PT	[SER]/[PLAS]	[QN]	
4	7	39963-4	CREATININE*4H POST XXX CHALLENGE	MCNC	PT	[SER]/[PLAS]	[QN]	
4	7	39971-7	CREATININE*12H POST XXX CHALLENGE	MCNC	PT	[SER]/[PLAS]	[QN]	

Find Local code

Bat. Test Find First Previous Next Last LOINC Lookup Exit

10 LOINC 4 of 190 LOINC Workshop OBR 12/8

Exporting Mapped Terms

The screenshot displays the RELMA software interface. The 'File' menu is open, showing options such as 'Search LOINC Database', 'Map local terms to LOINC', 'Select Local Term File to Process...', 'View/Add/Edit Local Terms...', 'Report Local Terms and Their LOINC Mappings...', 'Export Local Terms and Their LOINC Mappings to Delimited File...', 'View Local Term File Summary', 'Review Panels, Forms & Surveys...', 'Import Local Terms from Delimited File...', 'Import Local Terms from HL7 File...', 'Propose a new LOINC...', 'Review and Submit Proposed LOINCs...', 'Set User Preferences...', 'Set Preferred Language...', and 'Exit'. A callout box points to the 'Export Local Terms and Their LOINC Mappings to Delimited File...' option, with the text 'Export Terms to Delimited File'. The main window shows a 'Mapping Assistant' section with buttons for 'Panels, Forms, & Surveys', 'Import Local Terms', and 'Export Local Terms'. At the bottom, there are buttons for 'User Preferences' and 'Exit Program'. The footer contains the copyright notice 'Copyright © 1995-2011 Regenstrief Institute. All rights reserved.', the text 'OINC Workshop OBR 12', 'Welcome to RELMA, NIH/casejt', and 'Version 5.4'.

RELMA

File Tools HIPAA Lab Auto Mapper Help

Search LOINC Database

Map local terms to LOINC

Select Local Term File to Process...

View/Add/Edit Local Terms...

Report Local Terms and Their LOINC Mappings...

Export Local Terms and Their LOINC Mappings to Delimited File...

View Local Term File Summary

Review Panels, Forms & Surveys...

Import Local Terms from Delimited File...

Import Local Terms from HL7 File...

Propose a new LOINC...

Review and Submit Proposed LOINCs...

Set User Preferences...

Set Preferred Language...

Exit

Export Terms to Delimited File

Mapping Assistant

Panels, Forms, & Surveys

Import Local Terms

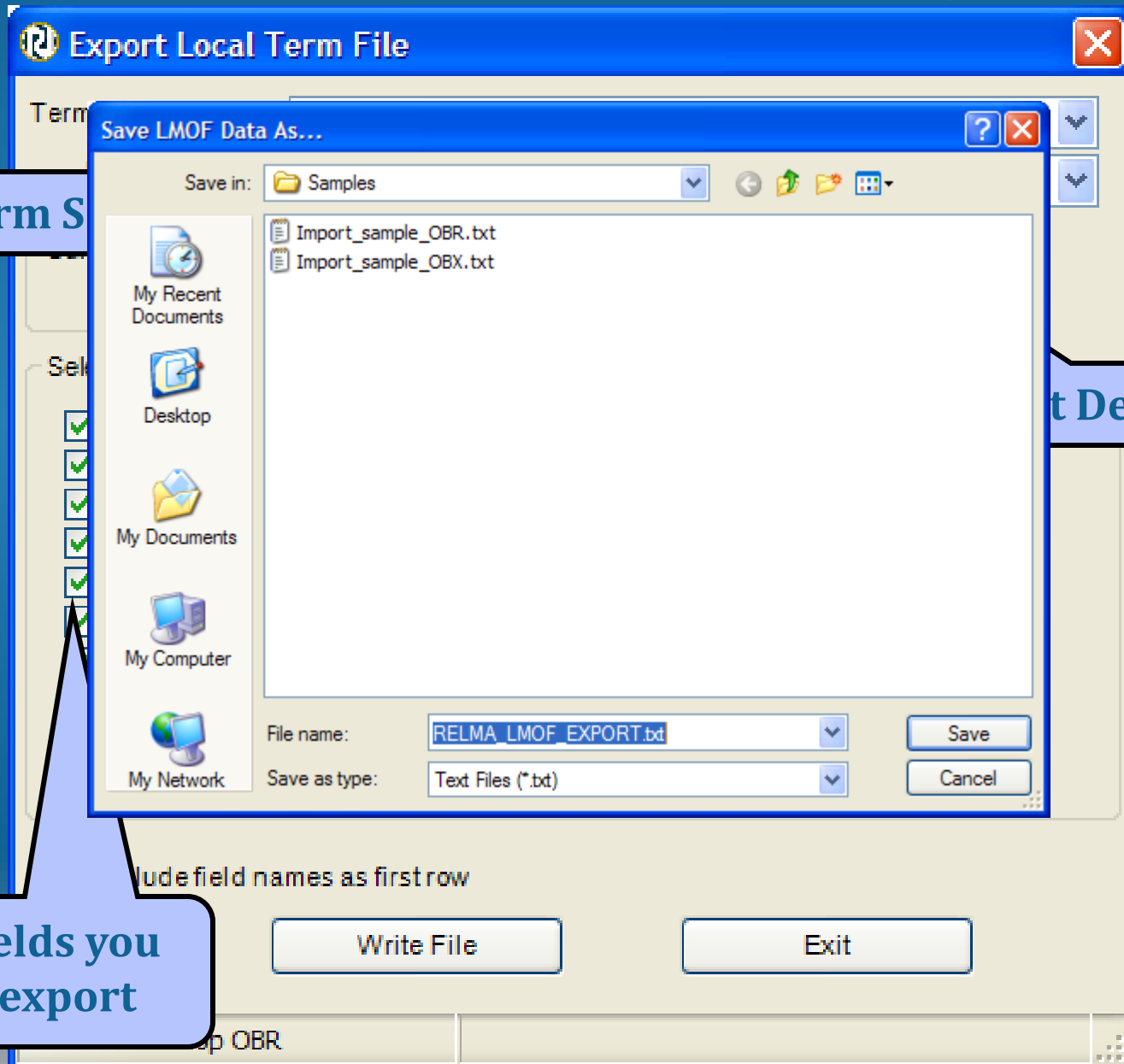
Export Local Terms

User Preferences Exit Program

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OINC Workshop OBR 12 Welcome to RELMA, NIH/casejt Version 5.4

Export Terms Dialog



Select Term S

t Delimiter

Check Fields you
wish to export

Searching for LOINC Terms



welcome to
RELMA®
the Regenstrief LOINC Mapping Assistant

Simplified Search
Only Tool



Search LOINC



Propose New LOINC Term



Map Local Terms to LOINC



Panels, Forms, & Surveys



View/Add/Edit Local Terms



Import Local Terms



Report Local Terms



Export Local Terms



User Preferences



Exit Program

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Search Window

The screenshot shows the 'Map Local Terms - LOINC Workshop OBR 12/8' application window. The interface includes a menu bar (File, Tools, HIPAA, Lab Auto Mapper, View, Help) and a tabbed search area with 'Search' selected. A search input field is at the top, followed by a 'Search' button and a help icon. Below these are checkboxes for 'Common Orders Only' and 'Common Lab Results Only', and a dropdown for 'Auto Mapper Search' set to 'No'. A table with columns 'Row', 'LOINC', 'Component', 'Property', 'System', 'Scale', 'Method', 'Class', and 'B' is visible. The bottom status bar shows 'Entry #: 1 of 190' and 'Multi-axial search tree load time: 6.55s'.

Help File

Enter Search

Link Specifics

Restrict to "Common Results"

Restrict to "Common Orders"

Use Automapper logic

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search

Units of Measure ☐ Common Orders Only ☐ Common Lab Results Only Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	System	Scale	Method	Class	B
-----	-------	-----------	----------	--------	-------	--------	-------	---

Entry #: 1 of 190 Units Specimen Methodless Common Labs Battery Max Words: Multi-axial search tree load time: 6.55s

Search Window

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

hematocrit qn bld Search ?

Units of Measure: ☐ Common Orders Only ☒ Common Lab Results Only Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class	ExUnits	Rank	OtherC
1	20570-8	Hematocrit	VFr	Pt	Bld	Qn		HEM/BC	%	28	
2	4544-3	Hematocrit	VFr	Pt	Bld	Qn	Automated count	HEM/BC	L/L;%	14	
3	31100-1	Hematocrit	VFr	Pt	Bld	Qn	Impedance	HEM/BC	%	165	
4	4545-0	Hematocrit	VFr	Pt	Bld	Qn	Spun	HEM/BC	%	546	

“Common Tests” rank

Units Specimen Methodless Common Labs Battery Max Words: 4 records found: 0.02s

New RELMA Helpfile

RELMA Help

Hide Back Forward Print

Contents Search

- Purpose
- Installation
- Program Overview
- RELMA Terminology
- Running the RELMA P
- Copyright Screen
- Opening the LOINC an
- Basic Search Syntax
- Advanced Search Synt
- Import Local Terms intc
- Import Local Terms intc
- Pre-Mapping Activities
- Appendix A: LOINC Su

Basic Search Syntax

The search syntax is similar to that of Google. Basic searches will follow the rules outlined below.

- Searches are case-insensitive so an upper case search term will return the same results as a lower case search term.
- Search terms will be separated by the AND operator when no operator is specified.

The following special characters can also be used in a basic search.

Special Characters	Example	Definition
" "	influenza "virus A"	Phrase.
AND	morphine AND opiates	Both terms must exist somewhere in each search result.
OR	influenza OR parainfluenza	Either of the terms exist somewhere in each search result.
NOT	influenza NOT equine	Excludes records that contain the term after NOT. The NOT operator cannot be used with just one term.
?	allergy artemi?	Single character wildcard search. Cannot be used in phrases.
*	allergy artemi*	Multiple character wildcard search. Cannot be used in phrases.
FieldName:	Field1:opiates AND Field2:hair	Field that must contain the term. The field is only valid for the term that it directly precedes. See the Basic LOINC Field Names section and Basic Part Field Names section for a list of the basic field

Context Menu

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

hematocrit qn bld Search ?

Units of Measure: ☐ Common Orders Only ☒ Common Lab Results Only Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class	ExUnits	Rank	OtherC...
1	20570-8	Hematocrit	VFr	Pt	Bld	Qn		HEM/BC	%	28	
2	4544-3	Hematocrit	VFr	Pt	Bld	Qn	Automated count	HEM/BC	L/L;%	14	
3	31100-1	Hematocrit	VFr	Pt	Bld	Qn	Impedance	HEM/BC	%	165	
4	4545-0	Hematocrit	VFr	Pt	Bld	Qn	Spun				

Right click to bring up context menu

- Export
- Configure Export
- Sort Grid
- Configure Grid
- View Details - Simple
- View Details - Comprehensive
- View Details - Custom
- View Panel Children
- Truncate Text
- Wrap Text
- Print
- Propose a new LOINC
- Propose a LOINC based on selected term
- Find Panels with all these LOINCs
- Find Panels with any of these LOINCs

Units Specimen Methodless Common Labs Battery Max Words: 4 records found: 0.02s

Mapping Local Terms



Mapping Local Terms

- Select your Working Set to Map
 - File>Select Local Term File to Process
- Select “Map Local Terms to LOINC” from Welcome Screen
- Select the subset of terms to work with:
 - All
 - Mapped
 - Unmapped
- Set your Search Limits
 - Set Search Limits Button

Standard Mapping Window Features

- Customizable grid
- View details of LOINC term
- Sort by column
 - Click column
 - Custom Sort
- Print or export results grid
- Spell check squiggly line to signify words not known to RELMA

Mapping Screen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy

Local Term File

Next Previous First Last

View: All

1 of 190

Mapped to: Name:

OBR-4 Code: 312370 OBR-3 Code: 309651 Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

Search

Show Words Propose Term

Local Term Details

on lab results Lookup Term By #

Auto Mapper Search: No

Quick select button list

Grid Tree

Row	LOINC	Component	Scale	Method	CL
-----	-------	-----------	-------	--------	----

View Details Print Grid Map Same Export Configure Export Configure Grid

Custom Grid Configuration

Truncated Text Print Preview

Entry #: 1 of 190 Units Specimen Methodless Common Labs Battery Max Words: 4 records found: 0.02s

Configure Grid

Configure Result Grid

Move/resize columns:

Column Name	Width
<input checked="" type="checkbox"/> Row	
<input type="checkbox"/> Score	66
<input checked="" type="checkbox"/> LOINC	72
<input checked="" type="checkbox"/> Component	192
<input checked="" type="checkbox"/> Property	72
<input checked="" type="checkbox"/> Timing	72
<input checked="" type="checkbox"/> System	96
<input checked="" type="checkbox"/> Scale	72
<input checked="" type="checkbox"/> Method	111
<input checked="" type="checkbox"/> UCUMunits	50
<input checked="" type="checkbox"/> Units	50
<input checked="" type="checkbox"/> Rank	50
<input checked="" type="checkbox"/> Class	72
<input checked="" type="checkbox"/> Longname	400
<input checked="" type="checkbox"/> Shortname	144

Reorder grid elements

Move Up

Move Down

Visually resize elements

Reset Default Configuration

Reset column order

Reset column widths

OK

Cancel

Output - move columns and modify widths:

NC	Component	Property	Timing	System	Score	Method
8-9	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

Quick choice buttons

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Next
Previous
First
Last

View: All

8 of 190

Mapped to: Name:

OBR-4 Code: 665670 OBR-3 Code: 755367 Units: mmol/L Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

CARBON DIOXIDE SERPL QN

Local Term Details

Common lab results

Lookup Term By #

Auto Mapper Search: No

Viewing LOINC term detail

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	CH
1	2028-9	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn		CH
2	57922-7	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	Calculated	CH

Truncated Text

Print Preview

Entry #: 8 of 190

Units Specimen Methodless Common Labs Battery Max Words:

2 records found: 0s

View Local Term Details

Multiple LOINCs/Parts

2028-9Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:

Component	Property	Time Aspect	System	Scale	Method
Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

STATUS

Active.

BASIC ATTRIBUTES

Class/Type:

CHEM/Lab

CDISC Lab Test:

Y

Order vs. Obs.:

Both

Percent of INPC Sample:

2.1866%

PARTS

Part Type	Part No.	Part Name
Component	LP15150-3	Carbon dioxide
System	LP7576-4	Ser/Plas [Serum or Plasma]

EXAMPLE UNITS

Unit	Source Type
mmol/L	EXAMPLE UCUM UNITS
mmol/L	REGENSTRIEF
mmol/L	eCHN

CURATED RANGE AND UNITS

Range	Units Type
21-30	mmol/L

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Simple Display

Simple Display

Comprehensive Display

Custom Display

Text Size - Medium

All on 1 page

Previous

2028-9

Next

Print

Close

of the details.

Simple Items

Display all on 1 page: 0.05 sec

View Local Term Details

Details for LOINC record # 2028-9

2028-9 Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:	Component	Property	Time Aspect	System	Scale	Method
	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

STATUS

Active.
Last updated 1998/03/11.

BASIC ATTRIBUTES

Class/Type:	CHEM/Lab
CDISC Lab Test:	Y
Order vs. Obs.:	Both
Common Lab Results Rank:	#7

HL7 ATTRIBUTES

HL7 v2 Data Type:	NM/ST
HL7 v3 Data Type:	PQ

ADDITIONAL ATTRIBUTES

Molar Mass:	44.01
-------------	-------

MEMBER OF THESE PANELS

24320-4	Basic metabolic 1998 panel in Serum or Plasma
24321-2	Basic metabolic 2000 panel in Serum or Plasma
24323-8	Comprehensive metabolic 2000 panel in Serum or Plasma
24326-1	Electrolytes 1998 panel in Serum or Plasma
24362-6	Renal function 2000 panel in Serum or Plasma
34554-6	Electrolytes 1998 & Venous pH panel in Serum or Plasma - Blood ven

PARTS

Part Type	Part No.	Part Name
Component	LP15150-3	Carbon dioxide

Source: Regenstrief Institute

Description: CO2 Content is a measurement of all the CO2 in the blood. Most of this of the CO2 is dissolved in the blood, and in the form of soluble carbonic acid (H2CO3). unusual losses (diarrhea). Respiratory disease can indirectly effect CO2 content, but on Arterial Blood Gas, Brookside Associates Medical Education Division.

Source: Wikipedia

Comprehensive Display Text Size - Smallest Separated pages Previous

Type Ctrl-F to search the text of the details.

Select text size

Details for LOINC record # 2028-9

2028-9 Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:	Component	Property	Time Aspect	System	Scale	Method
	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

STATUS

Active.
Last updated 1998/03/11.

BASIC ATTRIBUTES

Class/Type:	CHEM/Lab
CDISC Lab Test:	Y
Order vs. Obs.:	Both
Common Lab Results Rank:	#7

HL7 ATTRIBUTES

HL7 v2 Data Type:	NM/ST
HL7 v3 Data Type:	PQ

ADDITIONAL ATTRIBUTES

Molar Mass:	44.01
-------------	-------

MEMBER OF THESE PANELS

24320-4	Basic metabolic 1998 panel in Serum or Plasma
---------	---

Comprehensive Display Text Size - Largest Separated pages Previous 2028-9 Next Print Close

Type Ctrl-F to search the text of the details.

2028-9 1 of 1 LOINC HTML: 0.73 sec

Select detail display level

The screenshot shows the 'Map Local Terms - LOINC Workshop OBR 12/8' application. The interface includes a menu bar (File, Tools, HIPAA, Lab Auto Mapper, View, Help) and a tabbed toolbar (Search, Mapping, View All Working Set Terms, Hierarchy & Search Limits, Part Search). The 'Mapping' tab is active, displaying a 'Local Term File' section with fields for 'Mapped to:' (2075-0), 'Name:' (Chloride [Moles/volume] in Serum or Plasma), 'OBR-4 Code:' (665670), 'OBX-3 Code:' (755366), 'Units:' (mmol/L), 'Sample Values:', and 'Limit to Default Specimen:'. A search bar contains 'BASIC METABOLIC PANEL CHLORIDE SERPL QN'. A context menu is open over the main grid, listing options such as 'Export', 'Sort Grid', 'View Details - Simple', 'View Details - Comprehensive', 'View Details - Custom', 'View Panel Children', 'Truncate Text', 'Wrap Text', 'Print', 'Map', 'Repeat Mapping', 'Propose a new LOINC', 'Propose a LOINC based on selected term', 'Find Panels with all these LOINC's', and 'Find Panels with any of these LOINC's'. A red bracket highlights the 'View Details' options. The main grid has columns for Row, LOINC, Component, Property, Timing, System, Scale, and Name. The status bar at the bottom shows 'Entry #: 7 of 190' and various filters.

Select level of detail to display

- Export
- Configure Export
- Sort Grid
- Configure Grid
- View Details - Simple
- View Details - Comprehensive
- View Details - Custom
- View Panel Children
- Truncate Text
- Wrap Text
- Print
- Map
- Repeat Mapping
- Propose a new LOINC
- Propose a LOINC based on selected term
- Find Panels with all these LOINC's
- Find Panels with any of these LOINC's

Standard Mapping Screen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen: 665670 755366 mmol/L

Extra Search Words: Accept or enter OBR name and/or OBX name

BASIC METABOLIC PANEL CHLORIDE SERPL QN

View: All

7

Grid Tree

Row LOINC

No Matches

No records matched your search criteria. Note that the following search restrictions caused records to be eliminated from the search result set.

No LOINC codes were found to contain the keywords basic, metabolic, panel, chloride, serpl, and qn.

OK

View Details

Truncated Text Print Preview

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 0 records found: 0.12s

Begin a search (or hit "enter")

EEK! What'll I do?!

Standard Mapping Screen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

View: All

7 of 190 Show Words Propose Term Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class	ExUnits	Rank	Other
-----	-------	-----------	----------	--------	--------	-------	--------	-------	---------	------	-------

Click to show words used in search

Truncated Text Print Preview

View Details Print Grid Map Same Export Configure Export Configure Grid

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 0 records found: 0.12s

Initial Mapping Results

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name:

View: All

7 of 190 Auto Mapper Search: No

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/>	basic	23	<input checked="" type="checkbox"/> 5	serpl	7455
<input checked="" type="checkbox"/>	metabolic	17	<input checked="" type="checkbox"/> 6	qn	34485
<input checked="" type="checkbox"/>	panel	784	<input type="checkbox"/> 7		
<input checked="" type="checkbox"/>	chloride	124	<input type="checkbox"/> 8		

Tree

LOINC	Component	Property	Timing	System	Scale	Method

View Details

Print Grid

Map

Same

Export

Configure Export

Configure Grid

Truncated Text

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 0 records found: 0.58s

Use term
checkbox

Number of LOINC
terms containing
keyword

Battery terms
included in
search

Revised Mapping Results

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBR name

View:

7 of 190

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Hide Words Propose Term

Auto Mapper Search: No

Use Local Words # Hits

<input checked="" type="checkbox"/>	1	chloride	124
<input checked="" type="checkbox"/>	2	serpl	65
<input checked="" type="checkbox"/>	3	qn	485
<input type="checkbox"/>	4		

Use Local Words # Hits

<input type="checkbox"/>	5		
<input type="checkbox"/>	6		
<input type="checkbox"/>	7		
<input type="checkbox"/>	8		

Match units selected by default

Number of matching records found

Grid Tree

Row	LOINC	Component	Property	Timing	System	
1	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn
2	54369-4	Chloride	SCnc	Pt	Ser/Plas	Qn

Truncated Text

Print Preview

View Details

Print Grid

Map

Same

Export

Configure Export

Configure Grid

Entry #: 7 of 190

Units Specimen Methodless Common Labs Battery Max Words:

2 records found: 0.14s

Re-revised Mapping Results

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

Local Term Details

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

665670 755366 mmol/L

Extra Search Words: Accept or enter OBR name and/or OBR name

CHLORIDE SERPL QN

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

View: All

#: 7 of 190 Auto Mapper Search: No

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	chloride	124	<input type="checkbox"/> 5	<input type="text"/>	
<input checked="" type="checkbox"/> 2	serpl	7455	<input type="checkbox"/> 6	<input type="text"/>	
<input checked="" type="checkbox"/> 3	qn	34485	<input type="checkbox"/> 7	<input type="text"/>	
<input type="checkbox"/> 4	<input type="text"/>		<input type="checkbox"/> 8	<input type="text"/>	

Grid Tree

Row	LOINC	Comp	Property	Timing	System	
1	13006-2	1,4-D		Pt	Ser/Plas	Qn
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn
3	54369-4	Chloride^p	SCnc	Pt	Ser/Plas	Qn
4	9505-9	Chlorobenz	MCnc	Pt	Ser/Plas	Qn
5	54937-8	Chlorofom	MCnc	Pt	Ser/Plas	Qn
6	39357-9	Cholinest	CFr	Pt	Ser/Plas	Qn
7	12999-9	Epichloro	MCnc	Pt	Ser/Plas	Qn
8	17661-0	Succinyl	MCnc	Pt	Ser/Plas	On

Truncated Text

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.08s

Number of matching records found

Match units unselected

Standard Mapping Screen

Map Local Terms - LOINC Workshop OBR 12/8

FileToolsHIPAALab Auto MapperViewHelp

SearchMappingView All Working Set TermsHierarchy & Search LimitsPart Search

Local Term File

NextPreviousFirstLast

View: All

7 of 190

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

SearchClear InputsClear Most LimitsCommon lab resultsLookup Term By #

Hide WordsPropose Term

Local Term Details

Auto Mapper Search: No

UseLocal Words# Hits

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7

☐ 8

GridTree

Row	LOINC	Component	Property	Timing	System	Scale	Method
Truncated Text							

Print Preview

View Details

Print Grid

Map

Same

Export

Configure Export

Configure Grid

Entry #: 7 of 190

UnitsSpecimenMethodlessCommon LabsBatteryMax Words:

8 records found: 0.08s

Ad hoc term search

Map Local Terms - LOINC Workshop OBR 12/8

FileToolsHIPAALab Auto MapperViewHelp

SearchMappingView All Working Set TermsHierarchy & Search LimitsPart Search

Local Term File

Next
Previous
First
Last

View:
All

7 of 190

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

CANINE DISTEMPHER VIRUS IF

SearchClear InputsClear Most LimitsCommon lab resultsLookup Term By #

Hide WordsPropose Term

Auto Mapper Search: No

Local Term Details

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	canine	76	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	distemper	15	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	virus	4609	<input type="checkbox"/> 7		
<input checked="" type="checkbox"/> 4	if	1608	<input type="checkbox"/> 8		

GridTree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	23689-3	Canine distemper virus Ab	ACnc	Pt	Ser	Ord	IF
2	26903-5	Canine distemper virus Ab.IgG	Titr	Pt	CSF	Qn	IF
3	23691-9	Canine distemper virus Ab.IgG	Titr	Pt	Ser	Qn	IF
4	26890-4	Canine distemper virus Ab.IgM	Titr	Pt	CSF	Qn	IF
5	23693-5	Canine distemper virus Ab.IgM	Titr	Pt	Ser	Qn	IF
6	20742-3	Canine distempervirus Ag	ACnc	Pt	Cnjt	Ord	IF
7	23695-0	Canine distempervirus Ag	ACnc	Pt	Tiss	Ord	IF

Truncated Text
Print Preview

View Details
Print Grid
Map
Same
Export
Configure Export
Configure Grid

Entry #: 7 of 190
UnitsSpecimenMethodlessCommon LabsBatteryMax Words:
7 records found: 0.09s

Standard Mapping Screen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

View:

#: 7 of 190 Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
Truncated Text							

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 7 records found: 0.09s

Tabbed Access to Functions

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File Mapped to: Name:

Next Previous First Last

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Extra Search Words: Concept or enter OBR name and/or OBX name

View: All

7 of 190

Search Inputs Clear Most Limits Common lab results Lookup Term By #

Auto Mapper Search: No

Navigate to Functions from Mapping Page

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
[Empty Grid]							

View Details Print Grid Map Same Export Configure Export Configure Grid

Truncated Text Print Preview

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 7 records found: 0.09s

Tree View

Map Local Terms - LOINC Workshop OBR 12/8

FileToolsHIPAALab Auto MapperViewHelp

SearchMappingView All Working Set TermsHierarchy & Search LimitsPart Search

Local Term File

Next

Previous

First

Last

View:
All

7 of 190

Mapped to:Name:

OBR-4 Code:OBR-3 Code:Units:Sample Values:Limit to Default Specimen:

665670755366mmol/L

Extra Search Words:Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN

SearchClear InputsClear Most LimitsCommon lab resultsLookup Term By #

Show WordsPropose Term

Auto Mapper Search:No

Local Term Details

GridTree

Row	Category or...	Component	Prope...	Timing	System	Scale	Method	ExUCUM...	ExUnits	Rank	DocSedi...	Code
18168	Chemistry											LP31...
21510	Enzymes (see also Inborn errors metabolism lysosomal)											LP31...
22017	Cholinesterase											LP14...
22018	Cholinesterase.chloride Inhibited Bld-Ser-Plas											LP5181
22019	Choline... Cholinesterase.chlori...	CFr	Pt	Ser/Plas	Qn		%	%				39357-9
30325	Electrolytes - single valence											LP19...
30389	Chloride											LP15...
30392	Chloride Bld-Ser-Plas											LP4643
30394	Chlorid... Chloride	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L	8			2075-0
30395	Chlorid... Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L				54369-4
34592	Drug/Tox											LP3138
35335	Halogenated organic molecules											LP1811
35388	Chlorobenzene											LP17...

Truncated TextExpand BranchCollapse BranchHide LOINC S

View DetailsPrint GridMapSameExportConfigure ExportConfigure Grid

Entry #: 7 of 190

UnitsSpecimenMethodlessCommon LabsBatteryMax Words:

8 records found: 0.01s

Tree View

- Results displayed hierarchically
 - Defined by the multi-axial hierarchy in search restrictions (covered later)
- Map to a term in tree by clicking Map button or double clicking term
 - Only rows that have LOINC Codes

Tree View

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Loca

Can map to terms with LOINC Codes

Tree Navigation Buttons

Cannot map to terms representing LOINC parts

Sample Values: Limit to Default

Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN

Inputs Clear Most Limits Common

Propose Term

Search: No

Row	Category or...	Prope...	Timing	System	Scale	Method	ExUnits	Rank	DocSedi...	Code
18168	Chemistry									31...
21510	Enzymes (see also Inb... metabolism lysosomal)									LP31...
22017	Cholinesterase									LP14...
22018	Cholinesterase.chloride... Bld-Ser-Plas									LP5181
22019	Choline... Cholinesterased...	Fr	Pt	Ser/Plas	Qn	%	%			39357-9
30325	Electrolytes - single valence									LP19...
30389	Chloride									LP15...
30392	Chloride Bld-Ser-Plas									LP4643
30394	Chlorid... Chloride	SCnc		Ser/Plas	Qn	mmol/L	mmol/L	8		2075-0
30395	Chlorid... Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn	mmol/L	mmol/L			54369-4
34592	Drug/Tox									LP3138
35335	Halogenated organic molecules									LP1811
35388	Chlorobenzene									LP17...

Truncated Text Expand Branch Collapse Branch Hide LOINC S

View Details Print Grid Map Same Export Configure Export Configure Grid

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.01s

Assigning a LOINC Map

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN

View:

of 190

Auto Mapper Search:

Grid

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn	
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn	
3	54369-4	Chloride post dialysis	SCnc	Pt	Ser/Plas	Qn	
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn	
5	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn	
6	39357-9	Cholinesterase	CFr	Pt	Ser/Plas	Qn	
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn	
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn	

Highlight correct term

Click "Map" Button (or doubleclick)

Print Preview

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.01s

Adding Mapping Comments

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

665670 755366 mmol/l

Next Previous First Last

View: All

7 of 190

Mapping Comments

Please enter mapping comment(s) if desired:

OK Cancel

Check with Frank in Chemistry

Clear Most Limits Common lab results Lookup Term By #

Auto Mapper Search: No

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn	
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn	
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn	
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn	
5	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn	
6	39357-9	Cholinesterase chloride	MCnc	Pt	Ser/Plas	Qn	
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn	
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn	

View Details Print Grid Map Same Export Configure Export Configure Grid

Truncated Text Print Preview

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.01s

If comments option is selected, prompt appears

Assigning a LOINC Map

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Extra Search Words: CHLORIDE SERPL QN

View: All

#: 7 of 190

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Show Words Propose Term Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn	
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn	
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn	
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn	
5	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn	
6	39357-9	Cholinesterase,choride...	CFr	Pt	Ser/Plas	Qn	
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn	
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn	

View Details Print Grid Map Same Export Configure Export Configure Grid

LOINC Term Assigned

Truncated Text Print Preview

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: Map term: 3.33s

View LOINC Term Details

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit:

Extra Search Words: Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN

Search Clear Inputs Clear Most Limits Common lab results Looku #

View: All

7 of 190

Show Words Propose Term

Grid Tree

Row	LOINC	Component	Property	Timing	System
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Pl
2	2075-0	Chloride	SCnc	Pt	Ser/Pl
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Pl
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Pl
5	54937-8	Chloroform	MCnc	Pt	Ser/Pl
6	39357-9	Cholinesterase, chloride...	CFr	Pt	Ser/Pl
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Pl
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Pl

Export
Configure Export
Sort Grid
Configure Grid
View Details - Simple
View Details - Comprehensive
View Details - Custom
View Panel Children
Truncate Text
Wrap Text
Print
Map
Repeat Mapping
Propose a new LOINC
Propose a LOINC based on selected term
Find Panels with all these LOINC
Find Panels with any of these LOINC

View Details
Print Grid
Map
Same
Export
Configure Export
Configure Grid

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: Map term: 3.33s

View details for a specific LOINC Term

Right clicking on a LOINC term brings up a Task Menu

LOINC Term Details

Details for LOINC record # 2075-0

2075-0 Chloride [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:	Component	Property	Time	Method
	Chloride	SCnc	Pt	

STATUS

Active.

BASIC ATTRIBUTES

Class/Type:	CHEM/Lab
CDISC Lab Test:	Y
Order vs. Obs.:	Both
Percent of INPC Sample:	2.1479%

PARTS

Pa	
Co	
Sy	

EXAMPLE UNITS

Unit	
mmol/L	
mmol/L	
mmol/L	

CURATED RANGES

Range	Units
98-106	mmol

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Can scroll down a single formatted page

Change to expanded details view

Change text size

Can scroll through returned subset of terms

Simple Display Text Size - Medium Separated pages Previous 2075-0 Next Print Close

Type Ctrl-F to search the text of the details. 2075-0 1 of 1 LOINC HTML: 0.52 sec

Configure Export Options

The screenshot shows the 'Custom Export' dialog box. It features a table with columns '#', 'Column Name', and a selection checkbox. The first six rows are selected. To the right of the table is a list of output options: 'Copy to Clipboard' (selected), 'Save to File', 'Export to Excel', 'Send as Email', and 'Print'. Below the table is a section for 'Rows to Export' with 'Selected Rows' selected. At the bottom right, there is a checkbox for 'Include column headers' which is checked. At the bottom are five buttons: 'Select All', 'Clear All', 'Export and Save Configuration', 'Save Configuration', and 'Cancel'.

#	Column Name	
<input checked="" type="checkbox"/>	1 Row	
<input checked="" type="checkbox"/>	2 LOINC #	
<input checked="" type="checkbox"/>	3 Component	
<input checked="" type="checkbox"/>	4 Property	
<input checked="" type="checkbox"/>	5 Time Aspect	
<input checked="" type="checkbox"/>	6 System	
<input type="checkbox"/>	7 Scale	
<input type="checkbox"/>	8 Method	
<input type="checkbox"/>	9 Ex. UCUM	
<input type="checkbox"/>	10 Ex. Unit	
<input type="checkbox"/>	11 %99.+ Common Tests	
<input type="checkbox"/>	12	
<input type="checkbox"/>	16	
<input type="checkbox"/>	17 Doc./Se	

Output Options

- ☒ Copy to Clipboard
- ☐ Save to File
- ☐ Export to Excel
- ☐ Send as Email
- ☐ Print

Save Configuration and/or Export

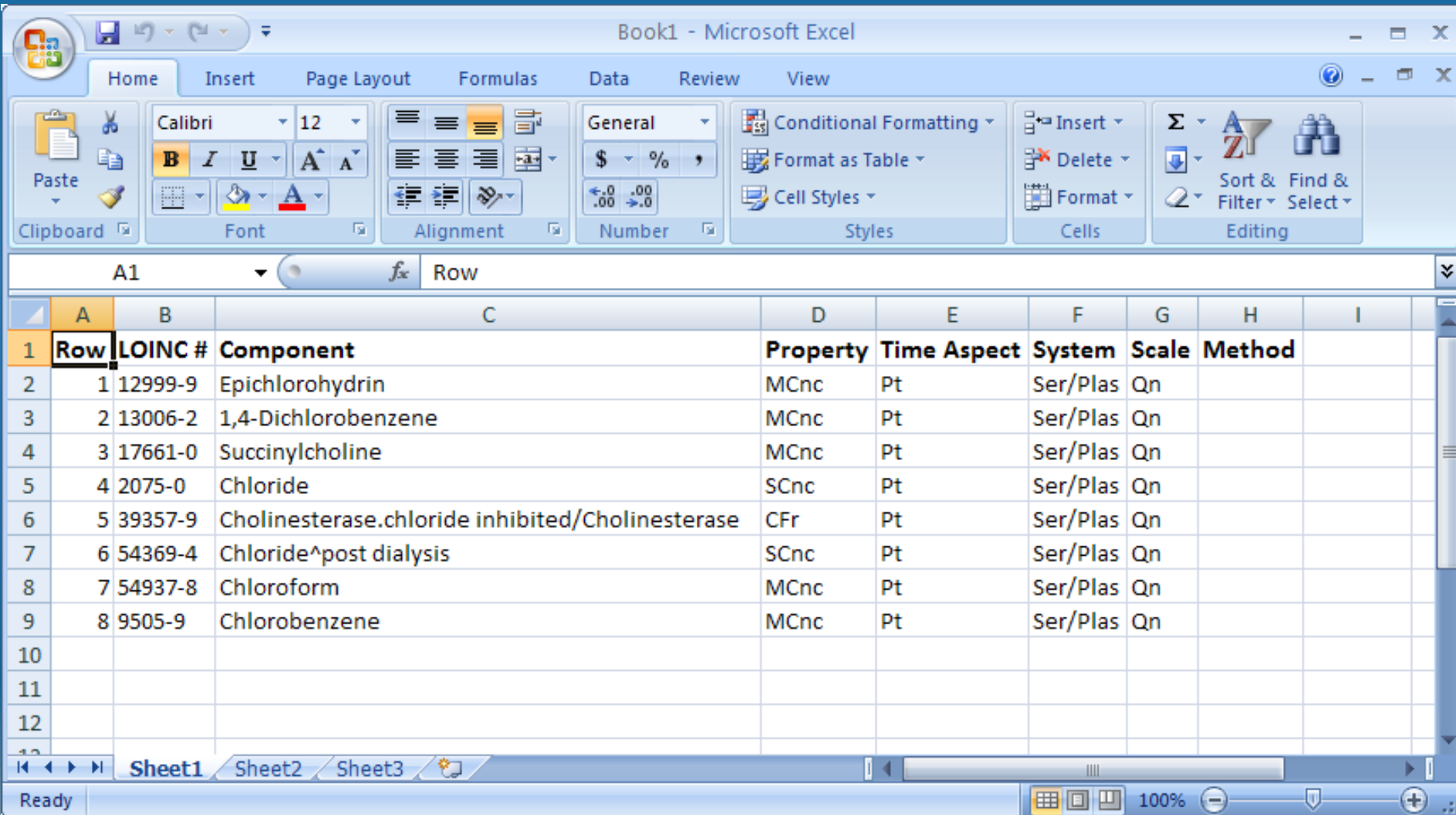
Rows to Export

☒ Selected Rows ☐ All Rows

☒ Include column headers

Select All Clear All Export and Save Configuration Save Configuration Cancel

Excel Export Format



The screenshot shows the Microsoft Excel interface with the following components:

- Title Bar:** Book1 - Microsoft Excel
- ribbon:** Home, Insert, Page Layout, Formulas, Data, Review, View
- Home Tab Groups:**
 - Clipboard:** Paste
 - Font:** Calibri, 12, Bold (B), Italic (I), Underline (U), Color, Background Color
 - Alignment:** Text alignment (left, center, right, justified), Orientation, Indentation
 - Number:** General, Currency (\$), Percentage (%), Decimals (0.00 to 0.00000000)
 - Styles:** Conditional Formatting, Format as Table, Cell Styles
 - Cells:** Insert, Delete, Format
 - Editing:** Sum (Σ), Find & Select (Z), Sort & Filter (funnel icon)
- Formula Bar:** A1, fx, Row
- Worksheet Grid:**

	A	B	C	D	E	F	G	H	I
1	Row	LOINC #	Component	Property	Time Aspect	System	Scale	Method	
2	1	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn		
3	2	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn		
4	3	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn		
5	4	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn		
6	5	39357-9	Cholinesterase.chloride inhibited/Cholinesterase	CFr	Pt	Ser/Plas	Qn		
7	6	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		
8	7	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn		
9	8	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn		
10									
11									
12									
- Sheet Tab Bar:** Sheet1, Sheet2, Sheet3
- Status Bar:** Ready, 100%

More on Searching Mapping Screen



Basic Search Syntax

Special Character(s)	Example	Definition
" "	Influenza "virus A"	Linked terms must appear together
AND	Morphine AND Opiates	Both terms must appear in the search result term
OR	Influenza OR Parainfluenza	Either or both terms must appear in the search result term
NOT	Influenza NOT equine	Excludes terms with the word following the NOT. Cannot be used alone.
?	Gluc?se (glucose, glucase)	Substitutes a single character in the string. Cannot be used as the first character; cannot be used in "phrases"
*	Gluc*se (glucose, glucuronidase, etc.)	Substitute multiple characters in the string. Cannot be used as the first character; cannot be used in "phrases"

Search Qualifiers

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Gluc*ase

Search

Units of Measure: ☐ Common Orders Only ☐ Common Lab Results Only Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	21064-1	Acid alpha glucosidase	CCnc	Pt	Amnio fld	Qn		CHEM
2	55827-0	Acid alpha glucosidase	CCnc	Pt	Bld.dot	Qn		CHEM
3	24050-7	Acid alpha glucosidase	CCnt	Pt	Fibroblasts	Qn		CHEM
4	1814-3	Acid alpha glucosidase	CCnc	Pt	Semen			CHEM
5	38475-0	Acid alpha glucosidase	CCnc	Pt	Ser/Plas			CHEM
6	1815-0	Acid alpha glucosidase	CCnt	Pt	Tiss			CHEM
7	30315-6	Acid alpha glucosidase	CCnt	Pt	Tsmi			CHEM
8	1816-8	Acid alpha glucosidase	CCnc	Pt	WBC			CHEM
9	24051-5	Acid alpha glucosidase	CCnc	Pt				CHEM
10	44037-0	Acid beta glucosidase	ACnc	Pt				CHEM
11	55917-9	Acid beta glucosidase	CCnc	Pt		Qn		CHEM
12	25829-3	Acid beta glucosidase	CCnt	Pt	Fibroblasts	Qn		CHEM
13	38477-6	Acid beta glucosidase				Qn		CHEM
14	18195-8	Acid beta glucosidase				Ord		CHEM
15	1943-0	Acid beta glucosidase				Qn		CHEM
16	32540-7	Acid beta glucosidase				Qn		CHEM
17	33661-0	Acid beta glucosidase				Qn		CHEM
18	35303-7	Acid beta glucosidase				Qn		CHEM
19	24091-1	Alpha-N-acetylglucosaminidase				Qn		CHEM
20	1837-4	Alpha-N-acetylglucosaminidase	CCnc	Pt		Qn		CHEM
21	1838-2	Alpha-N-acetylglucosaminidase	CCnt	Pt	Tiss	Qn		CHEM

Detailed help available

Includes Glucuronidase, Glucosidase, Glucosylceramidase, etc.

77 records found: 0.14s

Combining Search Terms

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search: Search

Units of Measure: ☐ Common Units Only ☐ Common Lab Results Only Auto Mapper Search:

Grid Tree

Row	LOINC	Component	Timing	System	Scale	Method	Class
1	24091-1	Alpha-N-acetylglucosaminidase	CCnc	Fibroblasts	Qn		CHEM
2	1837-4	Alpha-N-acetylglucosaminidase	CCnc	Ser/Plas	Qn		CHEM
3	1838-2	Alpha-N-acetylglucosaminidase					CHEM
4	2644-3	Alpha-N-acetylglucosaminidase					CHEM
5	24092-9	Alpha-N-acetylglucosaminidase					CHEM
6	63429-5	Bacterial beta-glucuronidase (uidA) gene	ACnc	Pt	Ord	Probe.amp.tar	MICRO
7	11209-4	Beta glucuronidase	CCnc	Pt	Qn		CHEM
8	24064-8	Beta glucuronidase	CCnt	Pt	Qn		CHEM
9	13962-6	Beta glucuronidase	CCnc	Pt	Qn		CHEM
10	14284-4	Beta glucuronidase	SCnc	Pt			
11	1944-8	Beta glucuronidase	CCnt	Pt			
12	1945-5	Beta glucuronidase	CCnc	Pt			
13	24065-5	Beta glucuronidase	CCnt	Pt	Qn		CHEM
14	34191-7	Beta glucuronidase	CCnc	Pt	Qn		CHEM
15	49862-6	G6PC genemutation analysis	Prid	Pt	Nar		MOLPA...
16	53732-4	GCK gene mutation analysis	Prid	Pt	Nar		MOLPA...
17	32779-1	Glucose-6-Phosphatase	CCnc	Pt	Qn		CHEM
18	2354-9	Glucose-6-Phosphatase	CCnc	Pt	Qn		CHEM
19	2355-6	Glucose-6-Phosphatase	CCnt	Pt	Qn		CHEM
20	2361-4	Glucosylceramidase	CCnt	Pt	Qn		CHEM
21	35473-8	HEXA gene 7.6kb deletion	Arb	Pt	Ord	Molgen	MOLPA...

Exclude Glucosidase

Reduced number of terms

36 records found: 0.04s

Advanced Search Syntax

based on Google-like search syntax

Parameter	Description
+	Term must be included in search
-	Term must be excluded from the search
()	Group terms for subquery (i.e. A OR B; A AND B)
Fieldname:	Limit term search to the associated field (e.g. Component: glucose)
Fieldname:()	Group multiple terms in a single field
~	Fuzzy search (e.g. Hemophilus~)
" "~	Proximity search for multiple terms (e.g. "function panel"~1)
{}, []	Upper and lower bounds; {} exclusive, [] inclusive
\	Special character escape

Applying advanced search

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

hemophilus~ Ag -QN System:CSF Search ?

Units of Measure: ☐ Common Orders Only ☐ Common Lab Results Onl Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	16926-8	Haemophilus influenzae A Ag	ACnc	Pt	CSF	Ord		MICP
2	6610-0	Haemophilus influenzae A Ag	ACnc	Pt	CSF	Ord	IF	MICP
3	32139-8	Haemophilus influenzae Ag	ACnc	Pt	CSF	Ord		MICP
4	24010-1	Haemophilus influenzae B Ag	ACnc	Pt	CSF	Ord		MICP
5	6611-8	Haemophilus influenzae B Ag	ACnc	Pt	CSF	Ord	IF	MICP
6	14321-4	Haemophilus influenzae B Ag	ACnc	Pt	CSF	Ord	LA	MICP
7	31835-2	Haemophilus influenzae C Ag	ACnc	Pt	CSF	Ord		MICP
8	6612-6	Haemophilus influenzae C Ag	ACnc	Pt	CSF	Ord	IF	MICP
9	31837-8	Haemophilus influenzae D Ag	ACnc	Pt	CSF	Ord		MICP
10	6613-4	Haemophilus influenzae D Ag	ACnc	Pt	CSF	Ord	IF	MICP
11	31839-4	Haemophilus influenzae E Ag	ACnc	Pt	CSF	Ord		MICP
12	6614-2	Haemophilus influenzae E Ag	ACnc	Pt	CSF	Ord	IF	MICP
13	31841-0	Haemophilus influenzae F Ag	ACnc	Pt	CSF	Ord		MICP
14	6615-9	Haemophilus influenzae F Ag	ACnc	Pt	CSF	Ord	IF	MICP

Units Specimen Methodless Common Labs Battery Max Words: 14 records found: 0.72s

Limiting Searches



Setting Search Limits

- Narrows search to specific subset of LOINC terms
- Reduces number of candidate terms
- Limits can be applied to all components
- Component attribute can be further restricted by number of words
- Tree structure allows for hierarchical constraints

General Search Constraints

- Controls features including:
 - Limit to LOINC terms compatible with submitted units
 - Forced match with any specimen contained in name
 - Method-less terms only
 - Limit to components/analytes with N or fewer words in their name
 - Pop up search timing statistics after each search
- Use carefully or search may not be successful
(Note parallel control switches at bottom of screen)

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/Volume] in Serum or Plasma Local Term Details

OBR-4 Code: OBR-3 Code: 665670 755366 Units: Sample Values: Limit to Default Specimen: mmol/L

Extra Search Words: Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN

View: All

7 of 190

Search

Show Words

Clear Inputs

Clear Most Limits

Common lab results

Lookup Term By #

Propose Term

Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn	
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn	
3	54369-4	Chloride^post dialy	SCnc	Pt	Ser/Plas	Qn	
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn	
5	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn	
6	39357-9	Cholinesterase.d	Cfr	Pt	Ser/Plas	Qn	
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn	
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn	

View Details

Print Grid

Map

Same

Export

Configure Export

Configure Grid

Print Preview

Entry #: 7 of 190

Units Specimen Methodless Common Labs Battery Max Words:

8 records found: 0.05s

Click Hierarchy & Search Limits Tab

Setting search limits

Can also set most of them by toggling buttons at the bottom of the screen

The screenshot displays a software interface with a table of search results. The table has columns: Row, LOINC #, Component, Property, Time Aspect, System, Scale, Method, Ex...., and Ex. Unit. The data rows are as follows:

Row	LOINC #	Component	Property	Time Aspect	System	Scale	Method	Ex....	Ex. Unit
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn			
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn			
5	54937-8	Chlorofom	MCnc	Pt	Ser/Plas	Qn		ug/L	ug/L
6	39357-9	Cholinesterase.chloride...	CFr	Pt	Ser/Plas	Qn			
7	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn			
8	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn			

Below the table, there is a section with a scroll bar and a 'Truncated Text' label. To the right of this section is a 'Print Preview' button. At the bottom of the screen, there is a row of toggle buttons: 'Units', 'Specimen', 'Methodless', 'Common 99%', 'Battery', and 'Max Words:'. A blue callout box labeled 'Toggle Buttons' points to this row. On the right side of the interface, there are several buttons: 'View Details', 'Print Grid', 'Map', 'Same', 'Export', 'Configure Export', and 'Configure Grid'. The bottom status bar shows 'Entry #: 7 of 473' and '8 records found: 0.03s'.

Search Constraints

The screenshot displays the 'Map Local Terms - LOINC Workshop OBR 12/8' application. The interface includes a menu bar (File, Tools, HIPAA, Lab Auto Mapper, View, Help) and a tabbed navigation system with tabs for Search, Mapping, View All Working Set Terms, Hierarchy & Search Limits, and Full Search. The 'Search Constraints' tab is active, showing various filter options. A red box highlights the 'Restrict Search' section, which contains four checkboxes: 'Terms consistent with local units' (checked), 'Terms consistent with specimen', 'Exclude terms with system 'left' or 'right'', and 'Common Orders only'. A blue callout points to this section, stating 'Local Unit Constraint: Default is "ON"'. Another red box highlights the 'Include These LOINCs' section, which includes checkboxes for 'Trial' (checked), 'Discouraged', and 'Deprecated'. A blue callout points to this section, stating 'Predefined, general search constraints'. A third red box highlights the 'Lab Test Restrictions' section, which includes radio buttons for 'None' (selected), 'Lab Tests only', 'CDISC Lab only', and 'Common Lab only'. A blue callout points to this section, stating 'Type toggle boxes'. On the right side, there are three dropdown menus: 'Favor Prop' (set to 'Favor None'), 'Order/Obs' (set to 'Ignore'), and 'Pharma MS' (set to 'Exclude MS* Terms'). Below these are checkboxes for 'Max # of' and 'Methodless Terms Only', and a checkbox for 'If no methodless version exists, then return the method specific terms'. The bottom status bar shows '8 records found: 0.05s'.

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Full Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

- ☒ Terms consistent with local units
- ☐ Terms consistent with specimen
- ☐ Exclude terms with system 'left' or 'right'
- ☐ Common Orders only

Include These LOINCs:

- ☒ Trial
- ☐ Discouraged
- ☐ Deprecated

Lab Test Restrictions

- ☒ None
- ☐ Lab Tests only
- ☐ CDISC Lab only
- ☐ Common Lab only

Local Unit Constraint: Default is "ON"

Predefined, general search constraints

Type toggle boxes

Favor Prop: Favor None

Order/Obs: Ignore

Pharma MS: Exclude MS* Terms

☐ Max # of

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

Units Specimen Methodless Common Labs Battery Max Words:

8 records found: 0.05s

Terms Consistent with Units

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

Local Term Details

OBR-4 Code: 665670 OBR-3 Code: 755367 Units: **mmol/L** Sample Values: Limit to Default Specimen:

Extra Search Words: CARBON DIOXIDE SERPL QN

View: All

8 of 190

Search Clear Inputs Clear Most Limits Common Lab results Lookup Term By #

Show Words Propose Term

Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	2028-9	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn		CH
2	57922-7	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	Calculated	CH

View Details Print Grid Map Same Export Configure Export Configure Grid

New! - Status saved between editing sessions

Only terms consistent with mmol/L appear

Truncated Text Print Preview

Entry #: 8 of 190 Units Specimen Methodless Common Labs Battery Max Words: 2 records found: 0s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☐ Terms consistent with local units

☒ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Max # of common words

☐ Methodless

☐ If no method return the

Specimen constraints

Units Specimen Methodless Common Labs Battery Max Words:

8 records found: 0.05s

Terms Consistent with Specimen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen: 665670 755366 mmol/L CSF

Extra Search Words: Accept or enter OBR name and/or OBX name ASPERGILLUS FLAVUS

View: All

#: 7 of 190

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Hide Words Propose Term Auto Mapper Search: No

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	aspergillus	167	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	flavus	17	<input type="checkbox"/> 6		
<input type="checkbox"/> 3			<input type="checkbox"/> 7		
<input type="checkbox"/> 4			<input type="checkbox"/> 8		

Enter default Specimen

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Measure
1	51529-6	(Aspergillus fumigatus+Aspergillus...	ACnc	Pt	Ser	Ord	Mu
2	31229-8	Aspergillus flavus Ab	ACnc	Pt	Body fld	Ord	
3	27377-1	Aspergillus flavus Ab	ACnc	Pt	Body fld	Ord	Im
4	16415-2	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord	
5	21084-9	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord	Im
6	13193-8	Aspergillus flavus Ab	ACnc	Pt	CSF	Qn	
7	9490-4	Aspergillus flavus Ab	ACnc	Pt	Ser	Ord	
8	23820-4	Aspergillus flavus Ab	ACnc	Pt	Ser	Ord	Im

View Details Print Grid Map Same Export Configure Export

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 17 records found: 0.09s

Terms Consistent with Specimen

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name: 2075-0 Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

665670 755366 mmol/L CSF

Extra Search Words: Accept or enter OBR name and/or OBR name

ASPERGILLUS FLAVUS

View: All

#: 7 of 190

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Hide Words Propose Term

Auto Mapper Search: No

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	aspergillus	167	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	flavus	17	<input type="checkbox"/> 6		
<input type="checkbox"/> 3			<input type="checkbox"/> 7		
<input type="checkbox"/> 4			<input type="checkbox"/> 8		

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	16415-2	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord	
2	21084-9	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord	Imm
3	13193-8	Aspergillus flavus Ab	ACnc	Pt	CSF	Qn	

Only CSF Terms are returned

View Details Print Grid Map Same Export Configure Export

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 3 records found: 0.04s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☐ Terms consistent with local units

☐ Terms consistent with specimen

☒ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Depreciated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

Favor Prop Favor Mass

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Max # of comp

☐ Methodless Te

☐ If no methodless version exists, then return the method specific terms

New! - Exclude laterality

Units Specimen Methodless Common Labs Battery Max Words:

105 records found: 0.25s

Exclude laterality

Map Local Terms - LOINC Workshop OBR 12/8

FileToolsHIPAALab Auto MapperViewHelp

SearchMappingView All Working Set TermsHierarchy & Search LimitsPart Search

Local Term File

Next
Previous
First
Last
View:
All
1 of 190

Mapped to:
Name:
OBR-4 Code:
OBR-3 Code:
Units:
Sample Values:
Limit to Default Specimen:
Extra Search Words:
Accept or enter OBR name and/or OBX name
EYE ACCOMODATION
Search
Clear Inputs
Clear Most Limits
Common lab results
Lookup Term By #
Show Words
Propose Term
Auto Mapper Search: No

GridTree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class	ExUnits	Rank	Oth
1	28763-1	Accommodation...	Len	Pt	Eye	Qn		EYE.R...	cm		
2	28751-6	Accommodation...	Len	Pt	Eye	Qn	Hand...	EYE.R...	cm		
3	28757-3	Accommodation...	Len	Pt	Eye	Qn	Minus glass	EYE.R...	cm		
4	29131-0	Accommodation...	Len	Pt	Eye	Qn		EYE.R...	cm		
5	28752-4	Accommodation...	Len	Pt	Eye	Qn	Hand...	EYE.R...	cm		
6	28758-1	Accommodation...	Len	Pt	Eye	Qn	Minus glass	EYE.R...	cm		
7	29132-8	Accommodation...	Len	Pt	Eye	Qn		EYE.R...	cm		
8	28753-2	Accommodation...	Len	Pt	Eye	Qn	Hand...	EYE.R...	cm		
9	28759-9	Accommodation...	Len	Pt	Eye	Qn	Minus glass	EYE.R...	cm		
10	28762-3	Accommodation width.relative	InvLen	Pt	Eye	Qn		EYE.R...	Diopter		
11	28750-8	Accommodation width.relative	InvLen	Pt	Eye	Qn	Hand...	EYE.R...	Diopter		
12	28756-5	Accommodation width.relative	InvLen	Pt	Eye	Qn	Minus glass	EYE.R...	Diopter		

Truncated Text
Print Preview

View Details
Print Grid
Map
Same
Export
Configure Export
Configure Grid

Entry #: 1 of 190
Units
Specimen
Methodless
Common Labs
Battery
Max Words:
12 records found: 0s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☐ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☒ Common Orders only

Favor Prop Favor Mass

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

Max # of ... words

☐ Methodless Test

☐ If no method return the n

New! - Restrict to common orders

Units Specimen Methodless Common Labs Battery Max Words:

12 records found: 0s

Restriction to common orders

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Next
Previous
First
Last

View: All

1 of 190

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

GLUCOSE

Search Clear Inputs Clear Most Limits Common lab results Lookup Term By #

Show Words Propose Term

Auto Mapper Search: No

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class	ExUnits	Rank	Other
1	2339-0	Glucose	MCnc	Pt	Bld	Qn		CHEM	mg/dL	13	
2	32016-8	Glucose	MCnc	Pt	BldC	Qn		CHEM	mg/dL		
3	41653-7	Glucose	MCnc	Pt	BldC	Qn	Glucometer	CHEM	mg/dL		
4	2344-0	Glucose	MCnc	Pt	Body fld	Qn		CHEM	mg/dL	795	
5	2342-4	Glucose	MCnc	Pt	CSF	Qn		CHEM	mg/dL	551	
6	2345-7	Glucose	MCnc	Pt	Ser/Plas	Qn		CHEM	mg/dL	4	

View Details
Print Grid
Map
Same
Export
Configure Export
Configure Grid

New! Common orders rank

Truncated Text Print Preview

Entry #: 1 of 190 Units Specimen Methodless Common Labs Battery Max Words: 1 6 records found: 0.02s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☐ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

☐ Max # of component words

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

☒ Methodless Terms Only

☒ If no methodless version exists, then return the method specific terms

Methodless Terms Restriction

Override Methodless Terms Restriction

Units Specimen Methodless Common Labs Battery Max Words: 3 records found: 0.04s

Limit to Methodless Terms

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name:

View: All

#: 7 of 190

Auto Mapper Search: No

Use Local Words # Hits

<input checked="" type="checkbox"/> 1	aspergillus	167
<input checked="" type="checkbox"/> 2	flavus	17
<input type="checkbox"/> 3		
<input type="checkbox"/> 4		

Use Local Words # Hits

<input type="checkbox"/> 5		
<input type="checkbox"/> 6		
<input type="checkbox"/> 7		
<input type="checkbox"/> 8		

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	51529-6	(Aspergillus...	ACnc	Pt	Ser	Ord	Multi disk	AL
2	31229-8	Aspergillus flavus Ab	ACnc	Pt	Body fld	Ord		MI
3	27377-1	Aspergillus flavus Ab	ACnc	Pt	Body fld	Ord	Immune diffusion	MI
4	16415-2	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord		MI
5					CSF	Ord	Immune diffusion	MI
6				Pt	CSF	Qn		MI
7				Pt	Ser	Ord		MI

Both method and method-less terms

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 17 records found: 0.04s

Limit to Methodless Terms

Map Local Terms - LOINC Workshop OBR 12/8


File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name: 

View: All

#: 7 of 190

Auto Mapper Search: No

Use Local Words # Hits

<input checked="" type="checkbox"/> 1	aspergillus	167	<input type="checkbox"/> 5	<input type="text"/>	
<input checked="" type="checkbox"/> 2	flavus	17	<input type="checkbox"/> 6	<input type="text"/>	
<input type="checkbox"/> 3	<input type="text"/>		<input type="checkbox"/> 7	<input type="text"/>	
<input type="checkbox"/> 4	<input type="text"/>		<input type="checkbox"/> 8	<input type="text"/>	

Grid **Tree**

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	31229-8	Aspergillus flavus Ab	ACnc	Pt	Body fld	Ord		MI
2	16415-2	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord		MI
3	13193-8	Aspergillus flavus Ab	ACnc	Pt	CSF	Ord		MI
4	9490-4	Aspergillus flavus Ab	ACnc	Pt		Ord		MI
5					Ser	Qn		MI
6				Pt	Ser	Qn		MI
7				Pt	Ser	Qn		AL

Only Methodless Terms Appear

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 10 records found: 0.71s

More on Methodless Terms

- Some LOINC categories do not have methodless terms
- Checking methodless only will remove these from view on results grid
- Checking additional box allows these to be seen

Methodless Only Unchecked

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or reject:

View: All

7 of 190

Auto Mapper Search: No

Use Local Words # Hits

<input checked="" type="checkbox"/> 1	viral	451
<input checked="" type="checkbox"/> 2	hemorrhagic	58
<input checked="" type="checkbox"/> 3	disease	1318
<input type="checkbox"/> 4		

Use Local Words # Hits

<input type="checkbox"/> 5		
<input type="checkbox"/> 6		
<input type="checkbox"/> 7		
<input type="checkbox"/> 8		

Grid **Tree**

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	23573-9	Viral hemorrhagic disease virus	ACnc	Pt	Tiss	Ord	Microscopy.electron	MI
2	23574-7	Viral hemorrhagic disease...	ACnc	Pt	Ser	Ord		MI
3	23577-0	Viral hemorrhagic disease...	ACnc	Pt	Ser	Ord	EIA	MI
4	31699-2	Viral hemorrhagic disease...	ACnc	Pt	Ser	Qn		MI
5	23575-4	Viral hemorrhagic disease...	Titr	Pt	Ser	Qn		MI
6	23576-2	Viral hemorrhagic disease...	Titr	Pt	Ser	Qn	EIA	MI
7	23578-8	Viral hemorrhagic disease...	Titr	Pt	Ser	Qn	HAI	MI

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 12 records found: 0.07s

Methodless Only Checked

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Samp: Ult Specimen:

Extra Search Words: Accept or enter O:

View: All

7 of 190

Auto Mapper Search: No

Only Methodless terms returned

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	viral	451	<input type="checkbox"/> 5	<input type="text"/>	
<input checked="" type="checkbox"/> 2	hemorrhagic	58	<input type="checkbox"/> 6	<input type="text"/>	
<input checked="" type="checkbox"/> 3	disease	1318	<input type="checkbox"/> 7	<input type="text"/>	
<input type="checkbox"/> 4	<input type="text"/>		<input type="checkbox"/> 8	<input type="text"/>	

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	23574-7	Viral hemorrhagic disease...	ACnc	Pt	Ser	Ord		MICR
2	31699-2	Viral hemorrhagic disease...	ACnc	Pt	Ser	Qn		MICR
3	23575-4	Viral hemorrhagic disease...	Titr	Pt	Ser	Qn		MICR

Differ in one or more components

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 3 records found: 0.02s

Conditional Methodless

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Set

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units:

Extra Search Words: Accept or enter OBR name and/or OBX name

VIRAL HEMORRHAGIC DISEASE

View:

#: of 190

Auto Mapper Search:

More terms returned

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	viral	451	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	hemorrhagic	58	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	disease	1318	<input type="checkbox"/> 7		
<input type="checkbox"/> 4			<input type="checkbox"/> 8		

No method-less term; all shown

Grid	Row	Property	Timing	System	Scale	Method	Class
1			Pt	Tiss	Ord	Microscopy,electron	MI
2				Ser	Ord		MI
3	31699-2	Viral hemorrhagic disease...	ACnc	Pt	Ser	Qn	MI
4	23575-4	Viral hemorrhagic disease...	Titr	Pt	Ser	Qn	MI
5	23581-2	Viral hemorrhagic disease...	ACnc	Pt	Tiss	Ord	Aggl
6	23580-4	Viral hemorrhagic disease...	ACnc	Pt	Tiss	Ord	EIA
7	23579-6	Viral hemorrhagic disease...	ACnc	Pt	Tiss	Ord	IF
8	23582-0	Viral hemorrhagic disease...	ACnc	Pt	Tiss	Ord	Immune stain

Entry #: 7 of 190

Units Specimen Methodless Common Labs Battery Max Words

8 records found: 0.07s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☐ None

☒ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

☐ Max # of component words

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

**Limit to Lab Tests Only
(No Clinical LOINC Terms)**

Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.07s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☐ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☒ Common Lab Results Only

☐ Max # of component words

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

Limit to common lab tests

Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.07s

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

☐ Max # of component words

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

Limit Number of Words in the Component Attribute

Units Specimen Methodless Common Labs Battery Max Words: 8 records found: 0.07s

Limit Number of Component Words

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Local Term File

Mapped to: Name:

OBR-4 Code: OBX-3 Code: Units: Sample Values: Limit to Default Specimen:

Extra Search Words: Accept or enter OBR name and/or OBX name

View: All

#: 7 of 190

**Without Limit Applied:
850 terms returned**

Use	Local Words	# Hits	Use	Local Words
<input checked="" type="checkbox"/> 1	glucose	877	<input type="checkbox"/> 5	
<input type="checkbox"/> 2			<input type="checkbox"/> 6	
<input type="checkbox"/> 3			<input type="checkbox"/> 7	
<input type="checkbox"/> 4			<input type="checkbox"/> 8	

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Class
1	52041-1	Blood glucose monitors...	Find	Pt	^Patient	Doc		ATTAC
2	58494-6	C peptide^1.5H post dose...	MCnc	Pt	Ser/Plas	Qn		CHAL
3	47583-0	C peptide^1.5H post dose...	SCnc	Pt	Ser/Plas	Qn		CHAL
4	47584-8	C peptide^10M post dose...	SCnc	Pt	Ser/Plas	Qn		CHAL
5	58500-0	C peptide^15M post dose...	MCnc	Pt	Ser/Plas	Qn		CHAL
6	47585-5	C peptide^15M post dose...	SCnc	Pt	Ser/Plas	Qn		CHAL
7	58503-4	C peptide^1H post dose...	MCnc	Pt	Ser/Plas	Qn		CHAL

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 850 records found: 0.25s

Limit Number of Component Words

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View

Search Mapping View All Working Set Terms

Local Term File Mapped to: Name: OBR-4 Code: OBX-3 Code:

Next Previous

Enter OBR name and/or OBX name

Clear Inputs

Hide Words Propose Term

Use Local # Hits Use All Words

☒ 1 glucose 877

☐ 2

☐ 3

☐ 4

Grid Tree

Row	LOINC	Component	Property	Timing	Item	Scale	Method	Class
1	41896-2	Class	Type	Pt	Glucose...	Nom		DEVICE
2	6300-8	Glucose	MCnc	Pt	Glucose fld	Qn		CHEM
3	2339-0	Glucose	MCnc	Pt	Glucose	Qn		CHEM
4	2340-8	Glucose	MCnc	Pt	Glucose	Qn	Test strip auto	CHEM
5	2341-6	Glucose	MCnc	Pt	Glucose	Qn	Test strip manual	CHEM
6	15074-8	Glucose	SCnc	Pt	Glucose	Qn		CHEM
7	41651-1	Glucose	MCnc	Pt	Glucose	Qn		CHEM

Entry #: 7 of 190 Units Specimen Methodless Common Labs Battery Max Words: 1 68 records found: 0.14s

Restriction appears on Toggle Bar (cannot toggle off)

Component limited to 1 word

With Limit Applied: 68 terms returned

Setting Search Limits

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Favor Prop Favor None

Order/Obs Ignore

Pharma MS Exclude MS* Terms

Include These LOINCs:

☒ Trial ☒ Discouraged ☒ Deprecated

☐ Max # of component words

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ CDISC Lab Tests Only

☐ Common Lab Results Only

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

Include Trial, Deprecated or Discouraged LOINC Codes with Returned Terms

Units Specimen Methodless Common Labs Battery Max Words: 68 records found: 0.14s

Include Deprecated LOINC Terms

The screenshot shows the 'Map Local Terms - LOINC Workshop OBR 12/8' application. The 'Mapping' tab is active, and a search for 'HEMOGRAM' is in progress. A modal dialog titled 'Discouraged LOINC Mapping Substitution' is displayed, asking if the user wants to map to LOINC # 58410-2 instead of the discouraged LOINC # 24317-0. A callout points to the 'Discouraged LOINC Terms' section of the results grid, which includes terms like 'Hemogram & platelets W/O...' and 'Hemogram W/O...'. Another callout points to the 'Deprecated LOINC Terms' section, which includes terms like 'Hemogram w/o...' and 'Hemogram, Pla...'. The status bar at the bottom indicates '11 records found: 0.07s'.

Local Term File

Mapped to: Name: []

OBR-4 Code: [] OBX-3 Code: [] Units: [] Sample Values: []

Extra Search Words: [] Accept or enter OBR name and/or OBX name

View: All [v]

#: 7 of 190

Use Local Words

Use	Local Words
<input checked="" type="checkbox"/> 1	hemogram
<input type="checkbox"/> 2	[]
<input type="checkbox"/> 3	[]
<input type="checkbox"/> 4	[]

Grid

Row	LOINC	Component
4	47288-6	CRCN
5	58410-2	Complete blood count...
6	24317-0	Hemogram & platelets W/O...
7	24359-2	Hemogram W/O...
8	24358-4	Hemogram...
9	47287-8	Hemogram w/o...
1	34527-2	Hemogram, Pla...

Discouraged LOINC Mapping Substitution

LOINC # 24317-0 is discouraged.
Do you wish to map to 58410-2 instead?

Yes No

Discouraged LOINC Terms appear as an inverted triangle

Deprecated LOINC Terms appear as Strikethrough Text with a "Do Not" Symbol

- You cannot map to deprecated LOINC terms

- You are warned before mapping to discouraged LOINC terms

Auto Mapper Search: No [v]

Hits

View Details

Print Grid

Map

Same

Export

Entry #: 7 of 190

Units Specimen

11 records found: 0.07s

Favor Property Restriction

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms **Hierarchy & Search Limits** Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

☐ Max # of component words

☐ Methodless Terms Only

☐ If no methodless version exists, then return the method specific terms

Favor Prop Favor None

Order/Obs Favor None

Pharma MS **Favor Mass**

Favor Substance

Favor one type of property over others

All other components being equal MCnc only will be displayed

Units Specimen Methodless Common Labs Battery Max Words:

11 records found: 0.07s

Order/Observation Restriction

Map Local Terms - LOINC Workshop OBR 12/8

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Restrict Search

☒ Terms consistent with local units

☐ Terms consistent with specimen

☐ Exclude terms with system 'left' or 'right'

☐ Common Orders only

Include These LOINCs:

☐ Trial ☐ Discouraged ☐ Deprecated

Lab Test Restrictions

☒ None

☐ Lab Tests Only

Favor Prop Favor Mass

Order/Obs Ignore

Pharma MS Ignore

☐ Max # of component words

☐ Methodless Terms Only

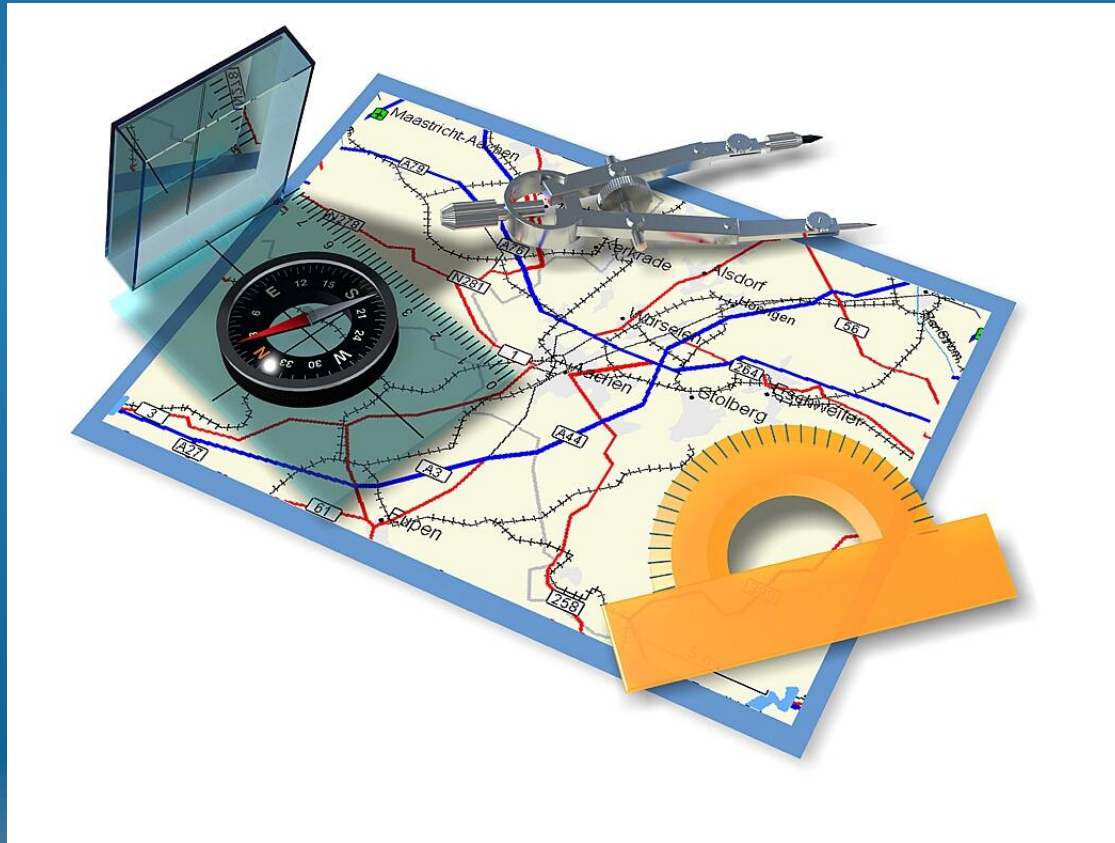
☐ If no methodless version exists, then return the method specific terms

Order or Observation preference

Units Specimen Methodless Common Labs Battery Max Words:

11 records found: 0.07s

Navigating through the Mapping Process



LOINC Mapping Tactics

- Limit effort to one lab section at a time and focus expertise
- Chemistry and hematology will be easiest
- For manufactured assays, use package insert as source information
- Sample results give clue to property and scale
- Consider prioritizing by frequency of use

A Rationale for Parsimonious Laboratory Term Mapping by Frequency

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ABSTRACT

Mapping local observation codes to a standard vocabulary provides a bridge across the many islands of data that reside in isolated systems, but mapping is resource intensive. To help prioritize the mapping effort, we analyzed laboratory results reported over a thirteen month period from five institutions in the Indiana Network for Patient Care. Overall, more than 4,000 laboratory observation codes accounted for almost 49 million results. Of the observations reported in the thirteen months, 80 codes (2%) accounted for 80% of the total volume from all institutions and 784 codes (19%) accounted for 99% of the volume from all institutions. The 244 to 517 observation codes that represented 99% of the volume at each institution also captured all results for more than 99% of the patients at that institution. Our findings suggest that focusing the mapping effort on this modest set of high-yield codes can reduce the barriers to interoperability.

INTRODUCTION

Indiana Medicaid, and RxHub. The federated INPC repository now stores more than a billion discreet clinical observations.

The INPC has coalesced many of the various sources that produce and store data in our community, with emerging clinical^{3,4} and financial⁵ benefits. In the INPC collaborative, Regenstrief Institute serves as a neutral third party convener. Regenstrief receives all of the clinical messages streams from participating systems and accomplishes the task of integrating data these sources by mapping the idiosyncratic local terms to a common master dictionary based on LOINC® (Logical Observation Identifiers Names and Codes), a universal code system for identifying laboratory and other clinical observations.⁶ Presently, over one hundred source systems send HL7 clinical result messages to Regenstrief within the INPC.

Mapping the local observation codes from all of these data sources requires substantial effort and domain expertise. Laboratory data is particularly challenging to map because of the large number (2,000-5,000) of

More LOINC Mapping Tactics

- Try using method-less terms first
 - Specific methods can be transmitted in:
 - OBX-17 (v2.x), Observation.methodCode (v3.0)
- Examine local units or real results to verify correct property and scale
 - Properties are rarely distinguishable in test names
- You don't have to do it all at one sitting
 - Use the "Unmapped" function to return where you left off
- With every release - Update previous mappings to identify deprecated terms

Common Mapping Issues

- Locally Defined Test Name Ambiguity
 - Reuse of local test code
- “Analyte-free” Local Test Names
 - (Miscellaneous serology)
- Incongruent Value sets (Scale ambiguity)
- Result vs. Interpretation
- Available LOINC Terms too Specific/General
- Panel vs. Discrete Test
 - Common in Microbiology

Can't find the
term you
want?



Search Hints and Tips

- Keywords with zero frequency are ignored
 - May need to rephrase – use synonym
- Some causes for no returned terms
 - Too many keywords in search – uncheck some
 - Limits applied that don't make sense
 - E.g. Method-less tests plus Method tree set to EIA
 - Did not find and revise words not in RELMA
 - Local units not in RELMA
- Units are GREAT discriminators
- You may have tests that need to be added to LOINC

Q and A Session



Exercise

Map your own data

